The Birds of California

The Birds of California

A Complete, Scientific and
Popular Account of the 580 Species and Subspecies of Birds
Found in the State

By

William Leon Dawson

of Santa Barbara

Director of the International Museum of Comparative Oölogy, Author of "The Birds of Ohio" and (with Mr. Bowles) of "The Birds of Washington"

Illustrated by More Than 1100 Half-tone Cuts of Birds in Life, Nests, Eggs, and Favorite Haunts, from Photographs

Chiefly by

Donald R. Dickey, Wright M. Pierce, Wm. L. Finley
and the Author

Together with 44 Drawings in the Text and a Series of
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UNION HIGH SCHOOL

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Contents of Volume II

PAGE

List of Full-page Color Plates xiii

Description of Species Nos. 140—281

Family *Mimidæ*—(Continued).

140 The Bendire Thrasher, *Toxostoma bendirei* 697
141 The California Thrasher, *Toxostoma redivivum* 698
142 The Leconte Thrasher, *Toxostoma lecontei lecontei* 705
143 The Crissal Thrasher, *Toxostoma crissale* 710
144 The Catbird, *Dumetella carolinensis* 712
145 The Western Mockingbird, *Mimus polyglottos leucopterus* 714
146 The Sage Thrasher, *Oreoscoptes montanus* 727

Family *Cinclidæ*—Dippers.

147 The American Dipper, *Cinclus mexicanus unicolor* 731

Family *Turdidæ*—Thrushes.

148 The Hermit Thrushes, *Hylocichla guttata* 739
149 The Russet-backed Thrushes, *Hylocochla ustulata* 750
150 The Western Robin, *Planesticus migratorius propinquus* 758
151 The Varied Thrushes, *Ixoreus nævius* 768
152 The Western Bluebird, *Sialia mexicana occidentalis* 774
153 The Mountain Bluebird, *Sialia currucoides* 781
154 The Townsend Solitaire, *Myadestes townsendi* 785

Family *Sylviidæ*—Kinglets, Gnatcatchers.

155 The Western Golden-crowned Kinglet, *Regulus regulus olivaceus* 796
156 The Ruby-crowned Kinglets, *Corthylio calendula* 801
157 The Western Gnatcatcher, *Polioptila cærulea obscura* 809
158 The Plumbeous Gnatcatcher, *Polioptila plumbea* 815
159 The Black-tailed Gnatcatcher, *Polioptila californica* 819

Family *Chamæidæ*—Wren-Tits.

160 The Wren-Tits, *Chamæa fasciata* 822

PAGE

Family *Motacillidæ*—Pipits.

161 The American Pipit, *Anthus spinoletta rubescens* 831

Family *Alaudidæ*—Larks.

162 The Horned Larks, *Otocoris alpestris* 837

Family *Tyrannidæ*—Tyrant-birds, American Flycatchers.

163 The Scissor-tailed Flycatcher, *Muscivora forficata* 847
164 The Kingbird, *Tyrannus tyrannus* 849
165 The Western Kingbird, *Tyrannus verticalis* 851
166 The Cassin Kingbird, *Tyrannus vociferans* 858
167 The Arizona Crested Flycatcher, *Myiarchus magister magister* 861
168 The Ash-throated Flycatcher, *Myiarchus cinerascens cinerascens* 862
169 The Phoebe, *Sayornis phoebe* 867
170 The Black Phoebe, *Sayornis nigricans* 868
171 The Say Phoebe, *Sayornis sayus* 873
172 The Western Flycatcher, *Empidonax difficilis difficilis* 878
173 The Brewster Flycatcher, *Empidonax trailli brewsteri* 884
174 The Hammond Flycatcher, *Empidonax hammondi* 886
175 The Wright Flycatcher, *Empidonax wrighti* 889
176 The Gray Flycatcher, *Empidonax griseus* 896
177 The Olive-sided Flycatcher, *Nuttallornis borealis* 901
178 The Western Wood Pewee, *Myiochanes richardsoni richardsoni* 905
179 The Vermilion Flycatcher, *Pyrocephalus rubinus mexicanus* ... 911

Order **Trochiliformes**—Hummingbirds.

Family *Trochilidæ*—Hummers.

180 The Calliope Hummer, *Stellula calliope* 915
181 The Broad-tailed Hummer, *Selasphorus platycercus* 922
182 The Allan Hummer, *Selasphorus alleni* 924
183 The Rufous Hummer, *Selasphorus rufus* 930
184 The Anna Hummer, *Calypte anna* 935
185 The Costa Hummer, *Calypte costæ* 946
186 The Black-chinned Hummer, *Archilochus alexandri* 954

PAGE

Order **Cypseliformes**—Swifts.

Family *Cypselidæ*—Swifts.

187 The White-throated Swift, *Aëronautes saxatalis* 960
188 The Northern Black Swift, *Nephœcetes niger borealis* 971
189 The Vaux Swift, *Chætura vauxi* 982

Order **Piciformes**—Woodpecker-like Birds.

Family *Picidæ*—Woodpeckers.

190 The Hairy Woodpeckers, *Dryobates villosus* 987
191 The Downy Woodpeckers, *Dryobates pubescens* 992
192 The Cactus Woodpecker, *Dryobates scalaris cactophilus* 997
193 The Nuttall Woodpecker, *Dryobates nuttalli* 999
194 The White-headed Woodpeckers, *Xenopicus albolarvatus* 1003
195 The Arctic Three-toed Woodpecker, *Picoides arcticus* 1006
196 The Red-naped Sapsucker, *Sphyrapicus varius nuchalis* 1008
197 The Red-breasted Sapsuckers, *Sphyrapicus ruber* 1011
198 The Williamson Sapsucker, *Sphyrapicus thyroideus* .....
199 The Western Pileated Woodpecker, *Phlœotomus pileatus picinus* 1020
200 The California Woodpecker, *Balanosphyra formicivorus bairdi* 1023
201 The Lewis Woodpecker, *Asyndesmus lewisi* 1030
202 The Gila Woodpecker, *Centurus uropygialis uropygialis* 1035
203 The Yellow-shafted Flicker, *Colaptes auratus borealis* 1037
204 The Red-shafted Flickers, *Colaptes cafer* 1039
205 The Mearns Gilded Flicker, *Colaptes chrysoides mearnsi* 1047

Order **Coraciiformes**—Roller-like Birds.

Family *Alcedinidæ*—Kingfisher.

206 The Western Belted Kingfisher, *Megaceryle alcyon caurina* ... 1049

Order **Caprimulgiformes**—Goatsuckers, etc.

Family *Caprimulgidæ*—Goatsuckers, Nighthawks.

207 The Poorwills, *Phalænoptilus nuttalli* 1053
208 The Pacific Nighthawk, *Chordeiles minor hesperis* 1059
209 The Texas Nighthawk, *Chordeiles acutipennis texensis* 1064

Order **Striges**—Owls.

Family *Tytonidæ*—Barn Owls.

210 The American Barn Owl, *Tyto perlata pratincola* 1070

PAGE

Family *Strigidæ*—Other Owls.

211 The Long-eared Owl. *Asio wilsonianus* ..... [illegible]
212 The Short-eared Owl. *Asio flammeus* 1087
213 The Spotted Owl. *Strix occidentalis* 1090
214 The Great Gray Owl. *Scotiaptex nebulosa nebulosa* ..... [illegible]
215 The Saw-whet Owl. *Cryptoglaux acadica* ..... [illegible]
216 The Screech Owls. *Otus asio* 1101
217 The Flammulated Screech Owl. *Otus flammeolus* ..... [illegible]
218 The Horned Owls. *Bubo virginianus* 1112
219 The Snowy Owl. *Nyctea nyctea* 1119
220 The Burrowing Owl. *Speotyto cunicularia hypogæa* ..... [illegible]
221 The Pygmy Owls. *Glaucidium gnoma* 1126
222 The Arizona Elf Owl. *Micrathene whitneyi whitneyi* ..... [illegible]

Order **Coccyges**—Cuckoos.

Family *Cuculidæ*—Cuckoos.

223 The Road-runner. *Geococcyx californianus* 1137
224 The California Cuckoo. *Coccyzus americanus occidentalis* ..... [illegible]

Order **Columbiformes**—Pigeons.

Family *Columbidæ*—Pigeons. Doves.

225 The Band-tailed Pigeon. *Columba fasciata fasciata* 1153
226 The Western Mourning Dove. *Zenaidura macroura marginella* 1158
227 The Western White-winged Dove. *Melopelia asiatica mearnsi* 1165
228 The Mexican Ground Dove. *Chamæpelia passerina pallescens* 1168

Order **Charadriiformes**—Plover-like Birds.

Family *Phalaropodidæ*—Phalaropes.

229 The Red Phalarope. *Phalaropus fulicarius* 1171
230 The Northern Phalarope. *Lobipes lobatus* 1178
231 The Wilson Phalarope. *Steganopus tricolor* 1184

Family *Recurvirostridæ*—Avocets. Stilts.

232 The American Avocet. *Recurvirostra americana* ..... [illegible]
233 The Black-necked Stilt. *Himantopus mexicanus* ..... [illegible]

Family *Scolopacidæ*—Snipe.

234 The Wilson Snipe. *Capella gallinago delicata* 1213
235 The Long-billed Dowitcher. *Limnodromus griseus scolopaceus* ..... [illegible]

PAGE

236 The Knot. *Canutus canutus* 1228
237 The Sharp-tailed Sandpiper, *Pisobia acuminata* 1230
238 The Pectoral Sandpiper, *Pisobia maculata* 1231
239 The Baird Sandpiper, *Pisobia bairdi* 1235
240 The Least Sandpiper, *Pisobia minutilla* 1238
241 The Red-backed Sandpiper, *Pelidna alpina sakhalina* 1243
242 The Western Sandpiper, *Ereunetes mauri* 1246
243 The Sanderling. *Crocethia alba* 1253
244 The Marbled Godwit, *Limosa fedoa* 1258
245 The Greater Yellowlegs, *Totanus melanoleucus* 1263
246 The Lesser Yellowlegs, *Neoglottis flavipes* 1266
247 The Western Solitary Sandpiper, *Tringa solitaria cinnamomea* 1268
248 The Western Willet, *Catoptrophorus semipalmatus inornatus* 1271
249 The Wandering Tattler, *Heteroscelus incanus* 1274
250 The Hartlaubian Sandpiper, *Bartramia longicauda* 1277
251 The Spotted Sandpiper, *Actitis macularia* 1278
252 The Long-billed Curlew, *Numenius americanus* 1282
253 The Hudsonian Curlew, *Phæopus hudsonicus* 1285

Family *Charadriidæ*—Plovers.

254 The Black-bellied Plover, *Squatarola squatarola* 1290
255 The American Golden Plover, *Pluvialis dominicus dominicus* 1296
256 The Killdeer, *Oxyechus vociferus vociferus* 1304
257 The Semipalmated Plover, *Charadrius semipalmatus* 1310
258 The Snowy Plover, *Charadrius nivosus nivosus* 1314
259 The Belding Plover, *Pagolla wilsonia beldingi* 1326
260 The Mountain Plover, *Podasocys montanus* 1329

Family *Aphrizidæ*—Surf-birds.

261 The Surf-bird, *Aphriza virgata* 1333

Family *Arenariidæ*—Turnstones.

262 The Turnstones. *Arenaria interpres* 1337
263 The Black Turnstone, *Arenaria melanocephala* 1342

Family *Hæmatopodidæ*—Oyster-catchers.

264 The Frazar Oyster-catcher, *Hæmatopus palliatus frazari* 1345
265 The Black Oyster-catcher, *Hæmatopus bachmani* 1346

PAGE

Order **Lariformes**—Gull-like Birds.

Family *Stercorariidæ*—Skuas, Jaegers.

266 The South American Skua, *Catharacta chilensis* 1353
267 The Pomarine Jaeger, *Stercorarius pomarinus* 1355
268 The Parasitic Jaeger, *Stercorarius parasiticus* 1357
269 The Long-tailed Jaeger, *Stercorarius longicaudus* 1360

Family *Laridæ*—Gulls.

270 Pacific Kittiwake, *Rissa tridactyla pollicaris* 1361
271 The Glaucous Gull, *Larus hyperboreus* 1363
272 The Iceland Gull, *Larus leucopterus* 1365
273 The Glaucous-winged Gull, *Larus glaucescens* 1366
274 The Western Gulls, *Larus occidentalis* 1376
275 The Herring Gull, *Larus argentatus argentatus* 1394
276 The California Gull, *Larus californicus* 1398
277 The Ring-billed Gull, *Larus delawarensis* 1413
278 The Short-billed Gull, *Larus canus brachyrhynchus* 1418
279 The Franklin Gull, *Chroicocephalus franklini* 1420
280 The Bonaparte Gull, *Chroicocephalus philadelphia* 1422
281 The Heermann Gull, *Blasipus heermanni* 1428

List of Full-page Color Plates

FACING PAGE

ALLEN'S HUMMER ..... Frontispiece

RED-BREASTED SAPSUCKER 1012

RED-SHAFTED FLICKER 1040

BONAPARTE'S GULL 1422

The Birds of California

Vol. II

Description of Species Nos. 140—281

No. 140

Bendire's Thrasher

A. O. U. No. 708. **Toxostoma bendirei** (Coues).

Description.—*Adults:* Upperparts plain grayish brown or drab, with slight increase of brown posteriorly; tail darker brownish gray (fuscous), the three outer pairs of rectrices narrowly tipped with white; cheeks drab streaked with buffy; underparts chiefly dingy white or pale buffy; crissum and flanks pinkish buff, immaculate; the breast and sides more or less shaded with pale buffy brown; sides of throat, chest, breast, and sides streaked with pale grayish brown, the streaks sharpest and narrowest on chest, broader and more diffuse posteriorly. Bill slightly curved; dusky horn-color, paling basally on lower mandible; tarsi light brown, the feet dark; iris yellow. *Immature:* Much like adult, but upperparts largely brighter brown (especially rump), contrasting with dusky of scapulars, remiges, and tail. Length about 254 (10.00) or less; wing 105 (4.13); tail 110 (4.33); bill 24 (.94); tarsus 33.5 (1.32).

Recognition Marks.—Robin size; to appearance and in size intermediate between Leconte's Thrasher and Sage Thrasher; drab of upperparts slightly darker than in *T. lecontei*, smaller, feet much paler, bill much shorter and less curved, underparts faintly spotted; larger and much lighter than in *Oreoscoptes montanus*, bill larger and longer, underparts only *faintly* spotted.

Nesting.—*Nest:* A loose assemblage of twigs, coarse or fine, lined variously with rootlets, grasses, horsehair or waste—the most varied in this respect of all thrashers—and placed at moderate heights in desert bush or tree. *Eggs:* 3, rarely 4; white, or grayish- or bluish-white, spotted sharply or diffusely, or faintly clouded with fawn-color (light vinaceous fawn to army brown) and vinaceous gray. Av. of 34 eggs in the M. C. O. coll.: 25.2 x 18.5 (.99 x .73); index 73.7; range 22.6-29.7 x 16.5-19.6 (.89-1.17 x .65-.77). *Season:* April–June; one brood.

General Range.—Lower Sonoran deserts of Arizona, California and Mexico. Breeds in southern Arizona and northern Sonora, less commonly in California; winters south to Sinaloa; accidental in Colorado.

Occurrence in California.—Not common breeder on the Mohave Desert (at least near Victorville), probably also on the Colorado Desert; seven records of occurrence as below.

Authorities.—**A. O. U. Check-List** (*Harporhynchus bendirei*), 2nd ed., 1895, p. 293 (Agua Caliente [Palm Springs]); see *Grinnell*, Pac. Coast Avifauna, no. 11, 1915, p. 154; *Heller*, Condor, vol. iii., 1901, p. 100 (Warren's Wells, Mohave Desert "fairly common in May, 1896"); *Brown, H.*, Auk, vol. xviii., 1901, p. 225 (s. Ariz.; range, habits, desc. nest and eggs); *Miller*, Condor, vol. xv., 1913, p. 41 (Los Angeles); *Pierce*, Condor, vol. xxi., 1919, p. 123 (Victorville, May); *ibid.*, vol. xxii., 1921, p. 34, fig. (Victorville; nesting).

THE HIGH-SOUNDING names which we have given to our Western Thrashers suggest a degree of difference between them which does not exist. While perfectly distinct as species, it is rather their striking similarity in appearance which impresses the bird student. Children of the desert all, it is only because the Crissal Thrasher has sought the cover of the mesquite woods that its browns have become the

darkest of the group. And similarly, it is the incorrigible wildness of the Leconte Thrasher which has driven him to the remoter wilderness and subjected him to the most severe bleaching action of the sun. Bendire's Thrasher occupies a mediating position. While the smallest of the California quintet, it is not so pale as Leconte's yet very much lighter than California or Crissal. Never bold or saucy, like a Mockingbird, Bendire will nevertheless, on occasion, submit to rather close inspection, and it has shown a tendency of late to attach itself to the outer circle of farmyard birds and the general vicinage of men.

The scattered California records of this bird are rather puzzling, and do not seem to fully define its status. The clearest examples of occurrence, including breeding records, were made by Mr. Wright M. Pierce near Victorville, on the southern edge of the Mohave Desert, in April, 1920; and it is believed that the species is well established in this section. However, if one wants to study the bird closely, he would better take a trip through southern Arizona. This Thrasher will first be seen in the lowlands bordering the Gila River, and unless one catches the note of white on the outer corners of the tail, it will be difficult to distinguish it from the scurrying Towhees. Elsewhere throughout its range, this bird will come into constant comparison with the larger, longer-billed, but only slightly darker, Palmer Thrasher.

Like the Palmer, Bendire nests freely in the open desert, especially in the cholla, and its whitish eggs, with the softly diffused dull reddish markings, may be instantly distinguished from the sharply dotted greenish eggs of *palmeri*. But again, when brought into comparison with the Western Mockingbird, which is likewise attached to outlying ranches, the eggs of *bendirei* require the closest scrutiny.

In a season's nesting in Arizona I scarcely heard this Thrasher sing; but a chance visit in January discovered a songster of rare merit and charm. The songs were dainty and varied, reminding me of nothing else so much as those of a Catbird, although they were at the same time sprightlier and less impassioned. The bird is something of a ventriloquist, too, and on such occasions drops liquid notes like beaded custard for richness.

No. 141

California Thrasher

A. O. U. No. 710. **Toxostoma redivivum** (Gambel).

Description.—*Adult:* Above plain dark brown (mummy-brown to bister and sepia); the tail barely darker, the edges of rectrices and upper tail-coverts slightly warmed with an ochraceous wash; cheeks darker brown, streaked with pale buffy;

color of back shading on sides to slightly lighter, grayer brown on breast; chin and throat light buff to whitish, shading posteriorly; crissum and flanks ochraceous tawny, shading insensibly on belly, through cinnamon-buff and pinkish buff to grayish buffy brown on breast. Bill black; feet brownish dusky iris brown. Length 11.00 to 12.00 (279.4-304.8); wing 102 (4.02); tail 130 (5.12); bill 36.3 (1.43); tarsus 38 (1.50).

Recognition Marks.—Robin size; curve-billed; nearly uniform brown coloration; brilliant song (often confused with that of Mockingbird); coloration darker than in two succeeding species.

Remark.—Specimens from interior and southern localities average slightly paler and grayer, and were formerly recognized by Grinnell under the name *Toxostoma redivivum pasadenense*. Specimens from the northern interior and the coastal region north of San Francisco Bay are slightly larger and darker, and have been described as *T. redivivum sonomæ* Grinnell.

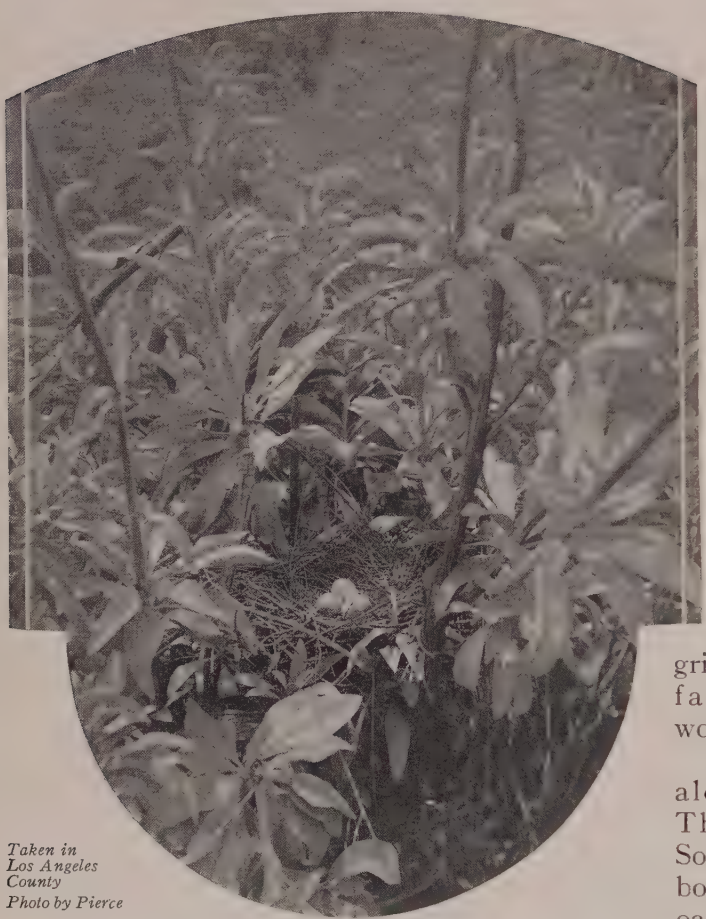
Nesting.—*Nest:* A rough bowl of coarse interlaced sticks and finer twigs, lined with brown grasses, bark-strips, and rootlets, placed at moderate heights in bushes or trees, or well concealed in thickets. *Eggs:* 3 or 4; light niagara green, faintly and finely or sparingly and rather coarsely spotted with reddish brown. Av. size 29 x 21.1 (1.14 x .83). *Season:* March–June; one or two broods.

General Range.—"Foothills and valleys of California west of the Sierra Nevada, breeding in Sonoran zones from Shasta County south to the San Pedro Martir Mountains and San Quentin, Lower California" (A. O. U. Check-List).

Authorities.—Milet-Mureau (*Promerops de la Californie Septentrionale*), Voy. de la Perouse, 1797, Atlas, pl. 37 (Monterey); *Gambel* (*Herpes rediviva*), Proc. Acad. Nat. Sci. Phila., vol. ii., 1845, p. 264 (orig. desc.); *Merriam, F. A.*, Auk, vol. xiii., 1896, p. 121 (habits); *Grinnell*, Auk, vol. xv., 1898, p. 237 (desc. *Harporhynchus redivivus pasadenensis*, Pasadena); *ibid.*, Condor, vol. ii., 1900, p. 19 (nesting in Dec.); *ibid*, vol. xxiii., 1921, p. 165 (syst.; *T. r. pasadenense* relegated to syn.); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 55 (food); *Oberholser*, Auk, vol. xxxv., 1918, p. 52 (syst.; syn., meas., range, crit.).

HOMELY APOLLO, historian of the chaparral, poet of the common weed, apostle of dewy morn, mediator of sun and shadow, woodland recluse, and shy intimate of back-yard tryst, minstrel alike of blue-gray-green spring and dun summer, brown wraith of California, thou dost work alike havoc in our gardens, harmony in our ears, and a heavenly hubbub in our hearts. Would, oh, would that there were more of thee, and more beautiful and more constant.

The California Thrasher is preëminently a chaparral bird, and as such enjoys a fairly uniform distribution up to about 6000 feet. It seeks its food chiefly upon the ground, where it rustles among the leaves and fallen wastage for beetles, ants, and scattered seeds. After a fresh rain it loves to delve in the earth itself—for grubs and cut-worms, however, rather than buried seeds; and the "havoc" wrought occasionally in an outlying garden is really beneficial plowing. Berries and wild fruit are eaten freely in season; and Rhus seeds, both harmless and poisonous, are a staple article of diet. The bird is strong on its feet, but rather



Taken in Los Angeles County
Photo by Pierce

A PUNGENT BOWER

THE WHITE SAGE (*Salvia apiana*) IS HIGHLY AROMATIC

weak a-wing, and oftener escapes by hopping through the shrubbery or running along the ground, than by exercise of the grand manner.

Screeping in the brush is always generously responded to, for *redivivum* has a lively bump of curiosity. He is, moreover, a duly constituted patrolman of the under chaparral; and because he is always dressed in service khaki, instead of the loudly advertised blue of Sergeant Aphelocoma, he is able to come to closer grips with the lesser malefactors of the leafy half-world.

It is the impulse of song alone which brings the Thrasher to plain view. Song requires the topmost bough of ceanothus or scrub oak, and the earnest gesticulations of the sickle-shaped mandibles are a commonplace to the observer who carries glasses. The song of the California Thrasher is most nearly comparable to that of the Mockingbird. It is, however, more broken, more impetuous, and a partisan might say of a fresher quality—at any rate, less conventional and civilized. The variety of utterance is so great, and the changes so incessant, that further characterization is useless. Well sounding phrases are often repeated, but hardly ever more than once. Indeed, I suppose it is this habit of double phrasing to which the California Thrasher, in common with its eastern kinsman, the Brown Thrasher (*T. rufum*), owes the frequent misnomer, "Thrush." For everyone recalls, instinctively, Browning's words:

"That's the wise thrush; he sings the song twice over
Lest you think he never could recapture
The first fine careless rapture."

But Browning wrote of an English bird, *Turdus musicus*, doubtfully a very distant relative of our American Thrashers. Now and then a singing Thrasher borrows from his neighbors, and we have unquestionable imitations, of Wren-Tit, Flicker, or Jay, interspersed with his own improvisations. The effect is rarely as convincing as in the case of our true Mockingbird, breathless, hurried, and disguised rather; but here, as always, it is individual ability which counts.

These common powers bring Thrasher and Mocker into frequent comparison, and some of us have been privileged to hear the two species comparing notes on their own account, with no little suspicion of jealousy in the premises; but we shall decline a decision. It is the age-old question of country-mouse and town-mouse, and such are settled by prejudices, not judgments.

Nests of the California Thrasher are rather casual affairs of masses of twigs lined with coarse rootlets or brittle weed-stalks, and placed in the depths of the denser bushes, or, more rarely, in live oaks. Nesting begins early, March or April, in southern latitudes, and continues with varying fortunes well into June. Being from the nature of its food rather independent of season, the bird makes also unseasonable nesting records. Mr. H. J. Lelande, the genial clerk of Los Angeles County, took two incubated eggs near Pasadena on the 27th of January, 1897; Mr. Grinnell broke all California records by taking, near Azusa, a set of three eggs in which incubation had begun, on the fifteenth day of December, 1899.

Taken in Pasadena *Photo by Dickey*
PORTRAIT OF CALIFORNIA THRASHER

Taken at Los Colibris *Photo by the Author*

"EXPRESSED HER DISPLEASURE BY LOOKING AS SOUR AS POSSIBLE"

On the 12th of June, 1913, I had the good fortune to find a Thrasher's nest at Los Colibris in the live oak over our garage. The female was sitting tightly on three eggs, and she proved to be almost as tame as an old hen. On first acquaintance she let me stroke her head, then heave her over gently to have a look at the eggs—all without resistance or evasion. The day following I returned for a systematic course with the cameras. After a little preliminary clearing away of minor limbs, which milady did not resent, I hoisted a major branch out of the way by means of ropes, and so exposed the bird to full sunlight. This proved to be decidedly uncomfortable, and the bird shifted around to face away from the light. Thereupon, I took hold of her, lifted her up, and set her down face to the sunlight. She grasped the nest lining with her feet in transit and succeeded in mussing it up needlessly. Moreover, she bit me peevishly (but harmlessly) and further expressed her displeasure by looking as sour as possible. But of course she never thought of leaving the nest!

On the 25th of June the youngsters hatched out, and were soon covered with a coat of long gray down. Moreover, they have the biggest heads and the yellowest mouths, and the slimmest, longest, wobbliest necks that I remember ever to have seen among Passerine forms. On my approach, too jejune no doubt, the brooding bird slid off hastily, leaving, as she did so, one of the youngsters sprawling on the skirt of the nest. My next approach was more judicious, and I was able to photograph the brooding mother repeatedly at four feet. The interesting thing this time was the occasional eruption of a great yellow demand for food (supported by a slender, wobbling pedicel) from under the fluffy flank-feathers

Taken in Monterey County "RATHER CASUAL AFFAIRS" *Photo by the Author*

Taken at Los Colibris JE DEMANDE *Photo by the Author*

of the mother. The indications are that the male bird is accustomed to feed his chicks in this fashion while his mate is brooding; but he was far too bashful to visit his brood while I was about.

On August 5th, after an absence of six weeks, while I was seated on the ground, Turk-fashion, with the Graflex in my lap, two California Thrashers advanced along the top rail of the fence with great show of caution, but also without sincerity of fear. They scolded me dutifully with that harsh, indescribable, beak-snapping note, *schthubb*, just as they heard their mother doing in a live oak beyond. They were the birds hatched in the live oak, for they each bore on one leg an aluminum band which my son had put on them just a month before. Their earlier experience had undoubtedly made them bold, for they came within five feet of me. At a later moment, when I turned loose my best screeps, the old mother hopped up excitedly over the ground and *schthup*ped in her best manner, while I pressed the button.

Taken at Los Colibris *Photo by the Author*

THE HUNGRY CHILD GROWN UP

If Christendom went to war over the difference of a syllable (homo-

Taken at Los Colibris THE MOTHER HOPPED UP EXCITEDLY *Photo by the Author*

ousia and hom*oi*ousia), we suppose we shall be rated out of order for complaining of those who are ready to fight for the adoption of a pet trinomial in bird nomenclature. But, really, the height of absurdity has been reached in the case of these Thrashers. Thrashers from Pasadena and those from Sonoma may exhibit average differences; but if they do, their own ornithological god-mother wouldn't know the difference if some wag were to change labels on the specimens submitted. And if a man were to attempt the trinomial separation of a litter of kittens on the basis of longer or shorter whiskers, or darker "tabby" color, he would be laughed out of a nursery. A plague on these quiddities, anyhow! Why, to hear tell of a "Pasadena" Thrasher and a "Sonoma" Thrasher, you would think that one of the birds was sky-blue, and the other wine-purple at least; but when you are taken into the secret, you learn that the breast of one is the color of a properly roasted peanut, while that of the other has been left in the roaster a second too long.[1]

No. 142

Leconte's Thrasher

A. O. U. No. 711. **Toxostoma lecontei lecontei** Lawrence.

Synonyms.—Desert Thrasher (name now restricted to *T. lecontei arenicola*); Yuma Thrasher.

Description.—*Adult:* General coloration pale grayish brown (drab to pale drab-gray) darkening to fuscous on tail; breast paler; throat and abdomen much paler, pale buffy to buffy white; crissum and flanks cinnamon-buff or pinkish buff—a thoroughly bleached form! Bill blackish; feet and legs dusky brown; iris reddish brown. Fall specimens are darker, with white of throat more strongly contrasting. Length about 254 (10.00); wing 98 (3.86); tail 120 (4.72); bill 32.8 (1.29); tarsus 31 (1.22).

Recognition Marks.—Robin size; curved bill with pale (grayish brown) "desert" coloration unmistakable; lighter and smaller than next species.

Nesting.—*Nest:* A shallow bowl of careless construction, often misshapen, composed basally of coarse twigs, mesially of fine weed-stems or grasses and interiorly of gray felted flower-heads of "a small woolly plant"; placed at moderate heights in cholla cactus, mesquite tree, or tree yucca. *Eggs:* 3 or 4; light to pale niagara green, very sparingly dotted, chiefly at the larger end, with reddish brown. Av. size 27.7 x 19.1 (1.09 x .75). *Season:* Feb. 15–June 1; one or two broods.

Range of *Toxostoma lecontei.*—Arid portions of southwestern United States, north Sonora and Lower California.

Range of *T. l. lecontei.*—Lower Sonoran deserts of southern California, southern Nevada, and southern Utah, south through Arizona to Cape Lobos, Sonora, and San Felipe Bay, Lower California.

Distribution in California.—Of fairly common occurrence in suitable cover in southeastern deserts, west regularly to Banning and Antelope Valley, north casually

[1] The claims of an alleged subspecies, *T. r. pasadenense* Grinnell, have since been abandoned, although Dr. Grinnell still holds "*T. r. sonomæ*" as a valid form.

Taken on the Mohave Desert *Photo by Wright M. Pierce*

HOW D'YE DO?
IMMATURE LECONTE THRASHER

to Benton; also irregularly and locally distributed in the Tulare basin; thus, colonies at Buena Vista Lake, Onyx, Bakersfield, McKittrick, and northwest of Tulare Lake between Huron and Arroyo Los Gatos. Casual near Julian, San Diego County.

Authorities.—**Cooper** (*Harporhynchus lecontii*), Proc. Calif. Acad. Sci., vol. ii., 1861, p. 122 (Mohave R.); *Stephens*, Auk, vol. i., 1884, p. 355 (Colorado Desert; habits, etc.); *Mearns*, Auk, vol. iii., 1886, p. 299 (syn., hist., biog., etc.); *Morcom*, Bull. Ridgway

Orn. Club, no. 2, 1887, p. 53 (Colorado Desert; breeding habits); *Gilman*, Condor, vol. vi., 1904, p. 95 (habits); *Grinnell and Swarth*, Univ. Calif. Pub. Zool., vol. x., 1913, p. 304 (possible hybrid, *lecontei* x *redivivum*); *Pemberton*, Condor, vol. xviii., 1916, p. 219, figs. (desc. nests; photos).

SMOKE-BUSH, yucca, palo verde, cholla, creosote! the very names envisage something different, while they recall to the mind of the devotee a sum of allurement for which he will periodically forswear comfort, companionship, civilization,—everything that life holds dear, save the easing of that mystic pain for which alone the desert has an antidote. Take the creosote, that mere cumberer of the ground, which grows only where nothing else will or can. What good is it? Yet a crushed spray, redolent as a drug store, looses a fever in the blood. At its summons one spreads wide arms of welcome to the appalling sun, greets the shimmering, gashed desert ranges as brothers, and wants to hug the whole pitiless, precious, awful aggregation of burning terrors to his starved bosom. Why—I cannot tell. Ask the Leconte Thrasher. He was here first, he the pioneer, the authentic desert rat! He came skipping merrily over the desert sands or ever the creosote was sprouted. He saw the first smoke-bush, that miracle of the eternal campfire, forever billowing its gray browns and its outer eddies of clearer blue-green grays, yet forever unconsumed. He paused with tail uplifted, or else pumping gently from the exertion of the run; and he glanced over his shoulder at the first horned toad who had dared to match his skin against the burning sands. And when the first cholla set its angular array of bristling spines, the Leconte Thrasher chirruped to his mate and said, "Go to, we will build our home in yon spiny heart"; and it was so. Wherefore, if you would know anything of the desert, ask old man Leconte. He knows.

He knows; but he will not tell; for of all recluses he is the shyest. Among all capable songsters, likewise, his voice is the rarest. The testimony[1] of Mr. M. French Gilman, of Banning, is emphatic on this latter point. "For some time I doubted the statement made by some writers that this Thrasher was a fine singer, but was finally 'shown' by the bird himself. While standing one evening on a high-drifted hill of white sand about two miles west of the rim of ancient Salton Sea I heard the sweet strains of a new bird song and began to look for the singer. I expected to find a mockingbird whose individuality had been developed by the desert solitudes and who had learned a new song. On an adjoining sand-hill, perched on the exposed tip of a sand-buried mesquite I saw the singer, a Leconte Thrasher. Perhaps environment enhanced the music, for the spot was a most lonesome God-forsaken one, near an

[1] Condor, Vol. VI., July, 1904, p. 96.

ancient Indian encampment and burial ground, but I have heard no sweeter bird song, and the memory still lingers. Since then I have heard the song a few times, but not oftener than once or twice a year, though I have been frequently among the birds. Not only do they seldom sing, but the whistling call note is not often heard. They appear to be silent unsociable creatures, never more than a pair being found together, unless a brood of young birds and parents, and then only till the former can fight for themselves."

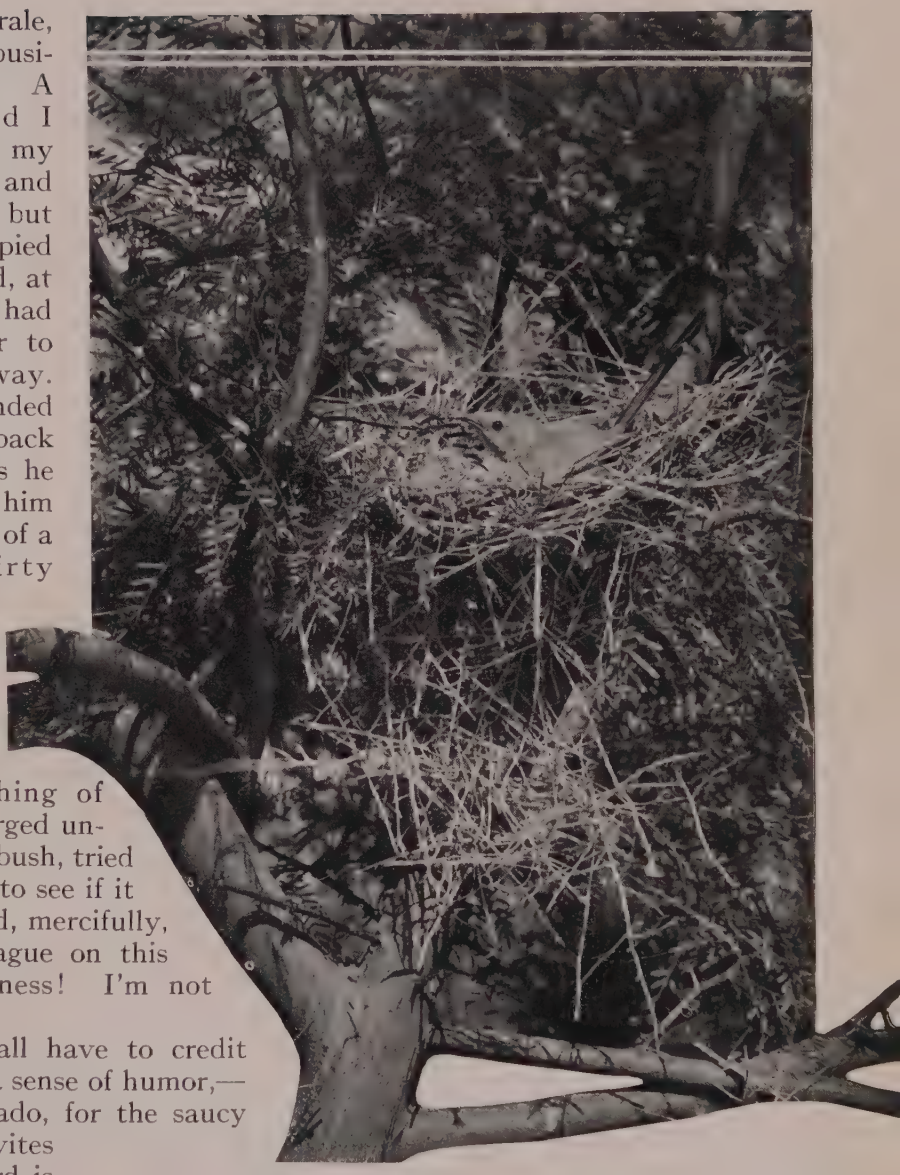
Taken on the Mohave Desert *Photo by Wright M. Pierce*

NEST OF LECONTE THRASHER IN *Opuntia ramosissima*

One morning, in February, 1913, I set out on foot for a reconnaissance in the desert north of Mecca, bearing a gun in a perfunctory way, for possible "specimens." The fluted rampart of hills, mother naked under the pitiless sun, seduced my steps, and I entered the mystic depths of one of the myriad canyons which pierce the range. In the course of an hour's travel I saw exactly one living creature, a solitary house-fly! Nothing did I see, either, for miles on the return save another fly. Then, suddenly, I heard a Leconte Thrasher singing—improvising little wild snatches of song. Murder rose in my heart and died almost immediately as I rapidly reviewed the rationale,

or rather the immorale, of the whole d—d business of bird-killing. A moment more and I might have flung my gun into a bush and taken to my heels, but on that instant I spied a bird on the ground, at half the distance I had supposed the singer to be, and blazed away. The Thrasher bounded off lightly and flung back a snatch of song as he went. Again I saw him standing at the foot of a sage bush at thirty paces. This time, villain to the heart's core, I aimed most carefully and hurled the murderous "8's." Like a thing of magic the bird emerged unscathed, flitted to a bush, tried his voice as though to see if it were still intact, and, mercifully, disappeared. A plague on this weary killing business! I'm not strong for it.

I think we shall have to credit this Thrasher with a sense of humor,—either that or bravado, for the saucy tilt of its tail invites pursuit, and the bird is so sure he can outrun and outdodge you that he scarcely troubles to take to wing. Cowboys used to take up the challenge, according to Mr. Gilman, and run them on horseback until the panting birds would take refuge in hole or bush and so be captured.



Taken on the Colorado Desert near Mecca *Photo by Dickey*

LECONTE THRASHER WITH NEST IN MESQUITE

Near its nest, however, Leconte Thrasher is the soul of discretion. It slips away from its eggs like a wraith, and unless incubation is far advanced will not be seen again. At the best, a mellow call note, *whooit*, or *kooik kooik*, will be heard in the offing, now on one side and now on the other. The nest, oftener than otherwise, occupies the very center of a cholla cactus at an elevation of two or three feet, and how the bird itself escapes injury in passing and repassing that bristling parapet of spines, passes human comprehension. The nest itself is a slimsy affair, for great dependence is placed upon the closely supporting array of cactus branches; but whatever the quantity of foreign twigs which may be smuggled into the bush, the bottom of the nest is sure to be composed almost exclusively of the densely matted flower-heads of a certain gray weed which abounds in the desert. This custom is inexorable, at least in the Colorado and Mohave deserts. What the birds who nest in the Atriplex bushes of the Buena Vista Lake region do for linings, I do not know.

Nesting begins in February on the Colorado Desert, though early April is the best average season for fresh eggs. Sometimes a second brood is brought off in May or June, but second nesting, or indeed any nesting, depends upon a favorable season. When the February rains have been copious, so that the desert blossoms as the rose (and there is no glory like the glory of the desert in blossom!) then the Thrashers are sure of support for their putative families, and they nest with a will. But if the rains fail and the desert languishes, the birds refrain from breeding. One wonders if the human kind is as wise, or indeed, as "natural" as the birds.

No. 143

Crissal Thrasher

A. O. U. No. 712. **Toxostoma crissale** Henry.

Description.—*Adult:* Somewhat similar to *Toxostoma redivivum*, but underparts much darker in coloration, with greater contrast between ground-color and white of throat and rufous of crissum. Above plain grayish brown or drab, shading on sides into lighter drab-gray of underparts; throat and malar area pure white, interrupted by dusky maxillary stripe; cheeks brown speckled with white; crissum and flanks dull chestnut. Bill black; feet brownish dusky. Length 279.4-304.8 (11.00-12.00); wing 100 (3.94); tail 40 (1.57); bill 35.3 (1.39); tarsus 32.8 (1.29).

Recognition Marks.—Robin size; curved bill and dark coloration; red crissum.

Nesting.—*Nest:* Of coarse twigs, preferably thorny; lined with dead grasses, usually weathered and frayed; placed in center of "all thorns" (*Zizyphus*) bush, or in other dense cover, as Atriplex bush. *Eggs:* 3, rarely 4; pale to light niagara green,

immaculate. Av. of 56 eggs in M. C. O. coll.: 26.4 x 19.1 (1.04 x .75); index 72; range 23.6-29.2 by 17.5-20.1 (.93-1.15 by .69-.79). *Season:* Feb. 15–June; two broods.

General Range.—The deserts of southwestern United States and northern Mexico. Breeds from Sonora and Chihuahua north to southern Nevada and Utah, and from the Colorado Desert east to western Texas.

Distribution in California.—Resident in the mesquite association in the bed of the Colorado Desert west to Palm Springs, and in the Colorado River Valley north at least to Needles.

Authorities.—Baird (*Harporhynchus crissalis*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 923 (Fort Yuma); *Mearns*, Auk, vol. iii., 1886, p. 292 (syn., hist., biog., etc.); *Morcom*, Bull. Ridgway Orn. Club, no. 2, 1887, p. 54 (Yuma, breeding); *Gilman*, Condor, vol. iv., 1902, p. 15 (Colorado Desert; desc. nests, etc.); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 207 (Colorado Valley; habitat, etc.).

ONE WOULD SUPPOSE that the extreme of modesty had been reached in the case of the Leconte Thrasher. Perhaps it has, so far as disposition is concerned, but the scantily clad desert sometimes betrays its votaries into involuntary exposure. The Crissal Thrasher has both disposition and opportunity, for he courts the seclusion of the mesquite forests, or of the Atriplex beds which border the desert sink, so that in the agelong effort to evade the public eye, the Crissal is more completely successful. Full many a nest have we found buried in the thorny heart of a jujube bush, but what we do *not* know about the Crissal Thrasher itself would fill a volume.

Somewhere in the forest depths one may hear the Crissal Thrasher singing. The tracing of it, however, will be a laborious task; because if the bird even suspects human approach, it will cease upon the instant and dive for cover. The song is rather a mild version of that of the Western Mockingbird. It is largely a mocking song, but is softened, subdued, refined, and has little of the dash or distinction of either the Mocker or the California Thrasher.

A little can be learned of the bird's behavior, if one posts himself beside the nest. This, although it occupies the heart of a thorn-bush, or else has been clustered amid supporting thorn twigs on the under side of a protecting mesquite limb, will have been uncovered so adroitly by the sitting bird that no movement of hers has been discovered. By and by, however, a solicitous note, *pichôôry*, *pitchôôry*, or *pitchree'*, will sound from the brush some twenty yards away. One very earnest fowl, near Tucson, remarked, *Pichôôri karrik'*, *pichôôri karrik'* in quite a brisk manner. At this sound birds of other species swarm up to the seat of trouble; but the mistress and her still more backward mate lurk ever in the offing. On such occasions I have seen a Palmer Thrasher, *T. curvirostre palmeri*, march boldly up to the nesting bush of *crissalis*

and eye the intruder sternly at six feet, while the rightful owner hovered in the background wailing *pichôôri*.

This association of Thrashers is always interesting. At one spot in the open desert in middle Arizona we found these four species within a stone's throw of camp, Bendire, Palmer, Crissal, and Western Mocker. "Open" desert hardly expresses the case, either, for Crissal, for where the others nested starkly in the scattered bushes of the level, Crissal had found a tiny sink-hole crowded with thorn-bushes. Here the lack of distant cover forced an unwonted audacity upon *crissalis*, and I saw a Crissal, a Leconte, and a Mockingbird so closely associated on a sparsely foliaged mesquite limb that one might have gathered in the group with a sweep of the arm.

To my mind, the most interesting thing about the Crissal Thrasher is that its egg is bluish green (pale to light niagara green), *unmarked*. In this respect it stands alone among the eggs of the *Toxostomata* (I have not, however, seen the eggs of *T. ocellatum* from southern Mexico), although the markings of *T. lecontei* are often very light and occasionally absent. This immaculateness has, no doubt, a considerable phylogenetic significance, if we could only read it. If *crissalis* were the lightest of the Thrashers instead of the darkest, we should say that the egg of *crissalis* was the logical evolution of the *lecontei* tendency; but the bird relates itself rather with *redivivum*, whose eggs are emphatically spotted. The threads of developmental history are here, and the clew is a big one; but we are not wise enough yet to follow it out.

Perhaps the neottologist (that is, the student of young birds) will be able to help us out. For his guidance I may say that young Crissal Thrashers are covered at an incredibly early age with a heavy *blackish* down, and that their mouth-linings are light wax-yellow.

No. 144

Catbird

A. O. U. No. 704. **Dumetella carolinensis** (Linnæus).

Description.—*Adult:* Slate-color, lightening almost imperceptibly below; black on top of head and on tail; under tail-coverts bay, sometimes spotted with slaty. Bill and feet black. Length 203.2-237.5 (8.00-9.35); wing 91.2 (3.59); tail 92.7 (3.65); bill 15.8 (.62).

Recognition Marks.—Towhee size; almost uniform slaty coloration with thicket-haunting habits distinctive; lithe and slender as compared with Water Ouzel.

Nesting.—(Does not breed in California). *Nest:* Of twigs, coiled bark-strips, weed-stalks, vegetable fibers, and trash; carefully lined with fine rootlets; placed at indifferent heights in bushes or thickets. *Eggs:* 4 to 5; deep niagara green (the most

Taken in Idaho *Photo by H. J. Rust*

CATBIRD AND NEST

intense example of "robin's egg blue," or "bird-egg color"); glossy. Av. size 24.1 x 17.5 (.95 x .69). *Season:* First two weeks in June; one brood.

General Range.—Eastern United States and British Provinces, west regularly to and including the Rocky Mountains, irregularly to the Pacific Coast in British Columbia and Washington. Breeds from the Gulf States northward to Saskatchewan, and south in the West to northeastern Oregon, northern Utah, and northeastern New Mexico. Winters in the Southern States, Cuba, middle America to Panama. Resident in Bermuda. Accidental in Europe, and on the Farallon Islands.

Occurrence in California.—Accidental on the Farallon Islands; one record: Sept. 4, 1884.

Authority.—Townsend, C. H. (*Mimus carolinensis*), Auk, vol. ii., 1885, p. 215.

THE PURELY ACCIDENTAL occurrence of a single Catbird, as recorded above, will hardly afford us a decent excuse to rehearse the virtues of one of our prime favorites, the peer in song of any of the eastern singers. But the date of this capture, September 4th, is not without significance in its support of our general thesis, that such eastern species as have recently extended their range to include the Pacific Northwest may be found virtually feeling their way down the coast in autumn in search of a shorter route to their winter home. The Catbird is a regularly established resident of eastern Washington, and recently has made its

appearance in certain valleys tributary to Puget Sound. It is almost certain, therefore, that a few of these birds are regularly traversing our borders, and it is quite within the bounds of possibility that they may one day establish a residence in northern California.

My friend, Dr. James Ball Naylor, of Malta, Ohio, tells the following story in answer to the oft-repeated question, Do animals reason? The poet's house nestles against the base of a wooded hill and looks out upon a spacious well-kept lawn which is studded with elm trees. The place is famous for birds, and the neighborhood is equally famous for cats. Robins occasionally venture to glean angle worms upon the inviting expanses of this lawn, but for a bird to attempt to cross it, unaided by wing, would be to invite destruction, as in the case of a lone soldier climbing San Juan hill. One day, however, a fledgling Catbird, overweening and disobedient, we fear, fell from its nest overhead and sat helpless on the dreaded slopes. The parents were beside themselves with anxiety. The birdie could not fly and would not flutter to any purpose. There was no enemy in sight, but it was only by the sufferance of fate, and moments were precious. In the midst of it all the mother disappeared and returned presently with a fat green worm, which she held up to baby at a foot's remove. Baby hopped and floundered forward to the juicy morsel, but when he had covered the first foot, the dainty was still six inches away. Mama promised it to him with a flood of encouragement for every effort, but as often as the infant advanced the mother retreated, renewing her blandishments. In this way she coaxed her baby across the lawn and up, twig by twig, to the top of an osage-orange hedge which bounded it. Here, according to Dr. Naylor, she fed her child the worm.

No. 145

Western Mockingbird

A. O. U. No. 703a. **Mimus polyglottos leucopterus** (Vigors).

Description.—*Adult male:* Upperparts and shading on sides of breast plain brownish gray (hair-brown); wings and tail slaty black, varied by white; some white spotting on top of middle and greater wing-coverts and tertials; a large white patch in wing formed by primary coverts and basal half of primaries (abruptly extended to near end of two innermost primaries); outermost pair of rectrices wholly white, the two succeeding pairs chiefly but decreasingly white; lores dusky; a whitish superciliary; cheeks mottled brownish gray and whitish; underparts dingy white, the chest and breast tinged with pale buffy brownish; wing-linings pure white, marked with dusky. Bill chiefly blackish; legs dusky; iris pale yellowish gray. *Females* are duller and with less of white on wings and tail. *Young birds* are much like adults, save that the breast and sides are heavily spotted with grayish. Length about 254 (10.00); wing 115 (4.53); tail 120 (4.72); bill 18 (.71); tarsus 32.5 (1.28).

WESTERN MOCKINGBIRD

Recognition Marks.—Black-and-white-and-gray coloration; prominent white wing-patch; long tail; lithe form.

Nesting.—*Nest:* Basally of coarse twigs, mesially of weeds, flower-heads, grasses, and trash; interiorly of rootlets, fine grasses, or horsehair, but highly variable, according to local supply; placed at moderate heights in bushes, thickets, vines, or trees, often near houses. *Eggs:* 4 or 5; pale niagara green, or pale glaucous green, handsomely spotted, or clouded and washed, with grayish brown (army brown to verona brown or even russet) and vinaceous gray. Av. size 25.2 x 18.3 (.99 x .72). *Season:* April–June; two broods.

The Western Mockingbird

Range of *Mimus polyglottos.*—United States south into Mexico and the West Indies.

Range of *M. p. leucopterus.*—Southwestern United States and Mexico. Breeds in Lower and Upper Sonoran zones from northwestern Nebraska, southern Wyoming, and central California (casually northwestern Nevada, Sunkist, July 28, 1918) south to Cape San Lucas and Oaxaca. Accidental on Guadalupe Island.

Distribution in California.—Resident chiefly in the Lower Sonoran zone; wandering into lower reaches of Upper Sonoran in fall and winter, notably in the counties tributary to San Francisco Bay. (One record also for Humboldt County, Dec. 1922, Ferndale.) An abundant breeder in the San Diegan district north to Santa Barbara and, less commonly, on the southeastern deserts north to Owens Valley (Lone Pine, June 18, 1911), formerly to the head of that valley (Fisher, N. Am. Fauna, no. 7, p. 127); also, sparingly, in the San Joaquin-Sacramento Valley, north to Marysville and Chico, and in the warmer valleys of the south central coast system, Santa Maria, San Juan (in San Luis Obispo County), Salinas, San Benito, etc. Resident on Santa Cruz, Catalina, and San Clemente Islands, and has occurred on Anacapa.

Authorities.—Gambel (*Mimus polyglottis*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 114 (Santa Barbara); *Mearns*, Auk, vol. xix., 1902, p. 70 (the Mockingbird of the west separated as *Mimus polyglottos leucopterus* (Vigors); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 52 (food); *Grinnell*, Auk, vol. xxviii., 1911, p. 293, map (distr. in Calif.); *Dickey*, Condor, vol. xxiv., 1922, p. 153 (song).

Taken at Los Colibr

Photo by the Author

IF GALLI-CURCI were to warble in your own dooryard day in and day out, year in and year out, the chances are you would come to feel yourself disqualified as a critic of coloratura singing. As I write these words on a November day, Old Faithful, the Los Colibris Mockingbird, showers music upon me from his favorite perch, a dead eucalyptus which overlooks the study. It is beautiful music, wonderful music, and I would not willingly spare it from the daily sum of life's joys.

ATTENT

Taken at Los Colibris *Photo by the Author*

"CONTRALTO CADENCES OF GRAVE DESIRE"

Yet my appreciation of Mockingbird music is undoubtedly dulled by long familiarity. Even angels will become commonplace in time, as witness the sluggish enthusiasm which marks an approaching "silver wedding." It is rather for the lady visitor, fresh from the snows of New England, to go into ecstasies over our Mockingbird, to answer his raptures with her own, as she stands reluctant at the study door, dreading to enter and so shut off the torrent of music. Come in, Lady. *Que voulez vous?* Oh, of course, I am the spoiled Californian, blasé, unresponsive. It is you, my Lady from Massachusetts, who must sing the Mocker's praise, while your interest is fresh.

Ah, yes; but let one even hint that my bright particular angel (for whom the silver chimes are soon to ring) is not the most beautiful, the most gifted, the most deserving of all help-meets, and he—well, he shall taste my steel upon the instant; and if some miscreant were to kill our Mockingbird, we should suddenly know ourselves bereft of a portion of heaven, the choicest, the most dependable of avian consolations; and the trouble we should make for that person would be measured only by the Government's ability, or sincerity, in enforcing the federal regulations. Wherefore, the degree of our consolation and the quality of its source will evidently repay examination. Sir Mockingbird, we will do our best.

"Trillets of humor,—shrewdest whistle-wit—
Contralto cadences of grave desire,
** * * * * * * * * midnights of tone entire,—*
Tissues of moonlight shot with songs of fire;—
Bright drops of tune from ocean's infinite
Of melody, sipped off the thin-edged wave
And trickling down the beak,—discourses brave
Of serious matter that no man may guess,—
Good fellow greetings, cries of light distress"

Taken at Los Colibris *Photo by the Author*

"TISSUES OF MOONLIGHT"

'Twas Sidney Lanier who with such unerring finger pointed out the cadence, the content, and the very spirit of the Mockingbird's song. No admirer has done the bird more equal justice and none is likely to. And it is no disparagement of other songsters to admit that the Mockingbird is the best known and the best-famed of all American song birds. In the mouths of the world's best critics, only the Nightingales of Europe and the Bulbuls of the Orient are brought into comparison with the American Mockingbird. As virtuosos these others may possibly excel, but the Mockingbird gains a favorable decision, however biased, because he frankly commits his cause to human keeping. By establishing his mate in our climbing rose bush, and himself

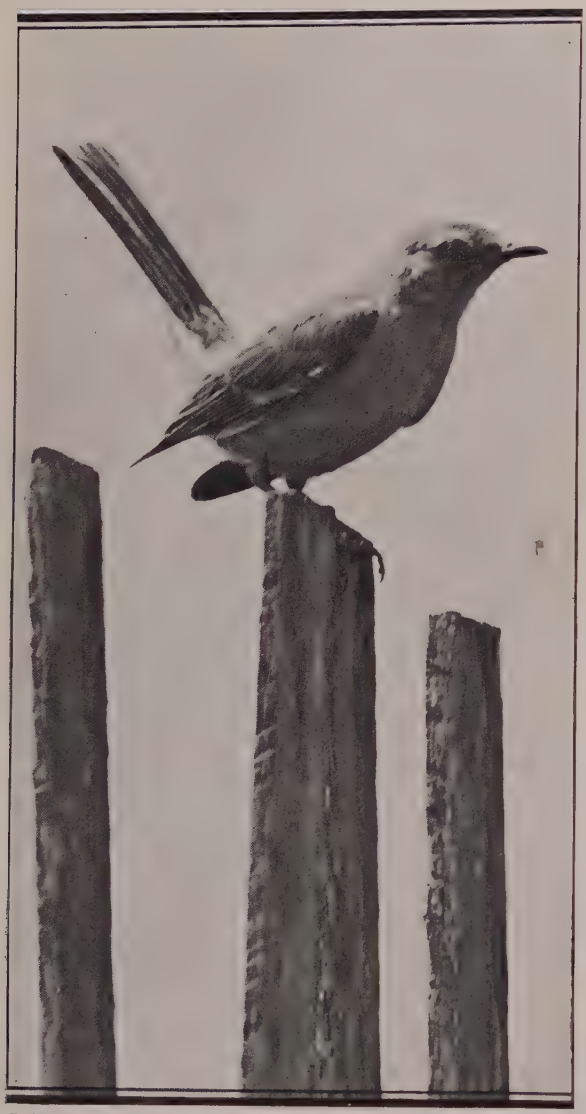
mounting guard above upon the cottage chimney, he has made us partners in interest. His cause is ours, and woe betide him who dares impugn the musical virtues of the American Mockingbird. He has touched our honor.

Taken in Los Angeles County *Photo by the Author*

AN ORPHEAN INFANT

The Nightingale sings only in a northern springtime—or so they tell us. With the Mockingbird it is eternal Spring. If bird-song expresses, as we hold, joy in life, rather than merely a passing desire to capture a mate, then is the Mockingbird the most joyful of birds. He is always at it, winter and summer. Or if in the springtime his songs are a little more earnest, a little more passionate, he is not more partial than the rest of us. Spring is the joy-time par excellence, and if one sings in the autumn, is it not because spring has been entrapped and carried over in the heart? Or if in winter, this is doubtless, also, because spring is coming.

Song is the Mocker's *raison d'etre*. It is his own true love, his passion, his obsession, no less than his trade. Not content with his own inspirations, masterly, varied, and abundant as these are, the singer lays under tribute everything else that sings, or yodels, or squawks withal. The plaintive notes of a Say's Phoebe and the regal scream of the Western Redtail interest him alike. No other bird-song is too foreign, too intricate, or too delicate for his own rendition. Of the passing migrants he takes toll, no less than of his familiar neighbors. Two Mockers that I heard in Arizona, and these a hundred miles apart, had each preserved the recollection of the exquisite gushing song of the Lincoln Sparrow (*Melospiza lincolni*). These mimics, too, had been unusually favored,



Taken at Los Colibris *Photo by the Author*

INQUISITIVE

for I myself never heard the Lincoln Sparrow sing, save in his breeding haunts high in the mountains, where, of course, the Mocker does not penetrate.

A captive Mockingbird which I once observed in the East proclaimed unconsciously the history of his early life. He reproduced not merely the songs of the village, where he had been kept some months, but those of the wilderness, as well, where he must have been reared. Besides these, the various songs and noises to be heard in the average bird store were faithfully represented. Some of his mimicry was irresistibly fetching, and I stood rooted to the pavement as the bird sang from a suspended cage at some distance from the street. What puzzled me most, however, about his performance, was that he always stood silent when a bantam rooster some two blocks away crowed. When his mistress assured me that it was the Mockingbird who crowed, I could scarcely believe my ears. Having always heard the rooster at a distance, the Mocker reproduced the sound in exactly the same way, with the ventriloquistic effect manifestly resulting. The crowing of the bantam was a favorite trick of his, and I noticed that he usually followed it by the scream of a hawk. The challenge of the cock followed by the cry of his enemy was certainly as clever a piece of stage work as ever a glee club did in a melange. In the course of an hour, songs and cries of seventeen species of birds were recognized, besides numerous baby calls not so clear. Among his many bird-store reminiscences, I made sure at one time that the monkeys were quarreling in their cage. His torrent of borrowed songs was continually

changing, like a kaleidoscope. I timed him once, and the tune was changed eighty-seven times in seven minutes.

A western performer phrases the borrowed song three or four or five times, rather than twice only, as does the Thrasher; though I think I have detected a tendency to phrase his own original offerings twice, in general thrasher-fashion. But perhaps this itself is an imitative form taken bodily from the California Thrasher, whose notes cannot be differentiated at all times from the Mocker's own.

A list of bird-songs imitated by the Western Mockingbird would be simply a repetition of the California Check-list. Two examples, however, occur to me as worthy of special note. On the 19th of March, 1917, I heard two Mockingbirds imitating *each other*. Bird Number One would sound a phrase, doubled, and pause, while Bird Number Two, some sixty yards away, repeated it very faithfully. This antiphonal arrangement lasted through a dozen bars or more; and then Bird Number Two held the theme, while Number One echoed him through half a dozen measures. But the performance of Number One turned mimic was half-hearted and listless. Perhaps he began to realize, for the first time, what an ungracious thing it might

Taken in Los Angeles County *Photo by Pierce*

NEST AND EGGS OF WESTERN MOCKINGBIRD IN ORANGE TREE

be to mock another's efforts. Anyhow, mocking a Mocker is idle business.

The other incident was connected with a concert which began at ten o'clock in the evening. First, by way of overture, came a Barn Owl's snarl. This appeared to cost the bird considerable effort—it really is an agonizing sound—and was, perhaps, a bit overdone; but it was at least so well done that we were some minutes in determining that the Barn Owl and the Mockingbird, who immediately succeeded him, were sounding from *precisely the same spot.* This effect was repeated at least half a dozen times and was invariably preceded by quite an interval of silence. It goes without saying that the illusion was all the more effective because of this foil.

Unquestionably the most memorable aspect of life in the citrus belt is the nocturnal singing of the Mockingbird. Every night in spring and early summer, and especially every moonlight night, no matter at what hour, so it be after 9:30 or thereabouts, the Mocker is likely to be holding forth in impassioned strain. Of course he does not sing *all* the time, but the quiet intervals are at least less extensive than the periods of song. It is noteworthy, as Nehrling has pointed out, that the singer relies more upon his own genius at night. Imitations are forgotten and the performer is lifted up by the viewless wings of poesy.

Taken in Los Angeles County HARD LINES *Photo by the Author*

One cannot swear that this Mocker's music improves at midnight, but some of his tenderer offerings are at least more acceptable when displayed against a background of silence.

What more touching than the devotion of this midnight minstrel! His heart is hot, and life—Oh, life is short—*Dum vivimus vivamus.* Let boobies slumber, and let churls berate us—we will celebrate the hours of love. Truth to tell, the midnight eloquence of the Mockingbird becomes at times a severe test of loyalty. For the spring of 1918 "Old Faithful" elected a station on the cornice just eight feet from the author's slumbering ear. "Music hath charms to soothe the savage breast"; but, ahem! it hath also potencies calculated to awaken the less savage. By the time Opus 16, Fugue in A Minor, is reached, viz., at about 2 a. m., one humbly wonders whether Song and an early breakfast are compatible joys.

Taken at Los Colibris *Photo by the Author*

INCREDULOUS

Pasadena is called the City of Roses. It ought, rather, to be called the City of Mockingbirds. Those who have contrived that heaven on earth have not neglected to people it with these indefatigable angels; or perhaps the birds have set the seal of their approval upon it by forsaking the minor paradises of the surrounding deserts and flocking to the major Valhalla. Anyhow, if your nerves trouble you at the midnight hour, avoid Pasadena. No; the police will not shoot that Mockingbird in order to assuage your petulant (and even pluto-

cratic) indignation. The Audubonites are incorrigible, and—you are in the minority. Possibly the birds have something to say to you in the quiet midnight watches, which you ought to hear.

* * * * * * * * * * *"Lo, this tearful night,*
Methinks I see thee, fresh from death's despite,
Perched in a palm grove wild with pantomime
O'er blissful companies couched in shady thyme.
Methinks I hear thy silver whistlings bright
Mix with the mighty discourse of the wise,
Till broad Beethoven, deaf no more, and Keats,
'Midst of much talk, uplift their smiling eyes,
And mark the music of thy wood conceits,
And halfway pause on some large courteous word,
And call thee 'Brother,' O thou heavenly bird!"

But the Mockingbird is, after all, very "human." We shall not leave him in Heaven, even for the space of this page; nor shall we hasten to deify him without having first examined the feet of clay. Even in the utterance of song he is something of a wag, not to mention a buffoon; while the elsewhere noble instinct of solicitude for young has in the Mockingbird degenerated into an exaggeration of petulance, which would be repulsive, were it not so entertaining and harmless.

To speak of the buffoonery first: It is well known how the Mocker plays the fool whenever his lady love appears. Though he flutters up to her with drooping wings, his flattery is mingled with intentional bombast, and she cries *yăă yăă* in the same mocking tone with which a girl in pigtails greets an awkward brother: "Yăă, Mr. Smarty, why don't you stand up and fall over?" It is fair enough, of course, that music should enter a bird's feet, as it does a man's; but when the Mocker attempts to dance, he invites ridicule rather than respect. His heart interferes with his heels, until one cries in derision, "Softy, softy!"

"*Los Colibris, June 24, 1915:* A Mocker singing before me on the cross-piece of a telegraph pole is leaping every now and then into the air to emphasize his ecstasy. The wings are fluttered slowly, revealing to the full their white areas; and the tail with its white border is displayed to the utmost. Singing is not interrupted, and as the bird moves off on a level through the air, he minces or drags with rakish affectation. Yet he is ever, to my mind, a somewhat serious fool, and he never achieves either the acrobatic distinction or the clownish abasement of the Western Chat."

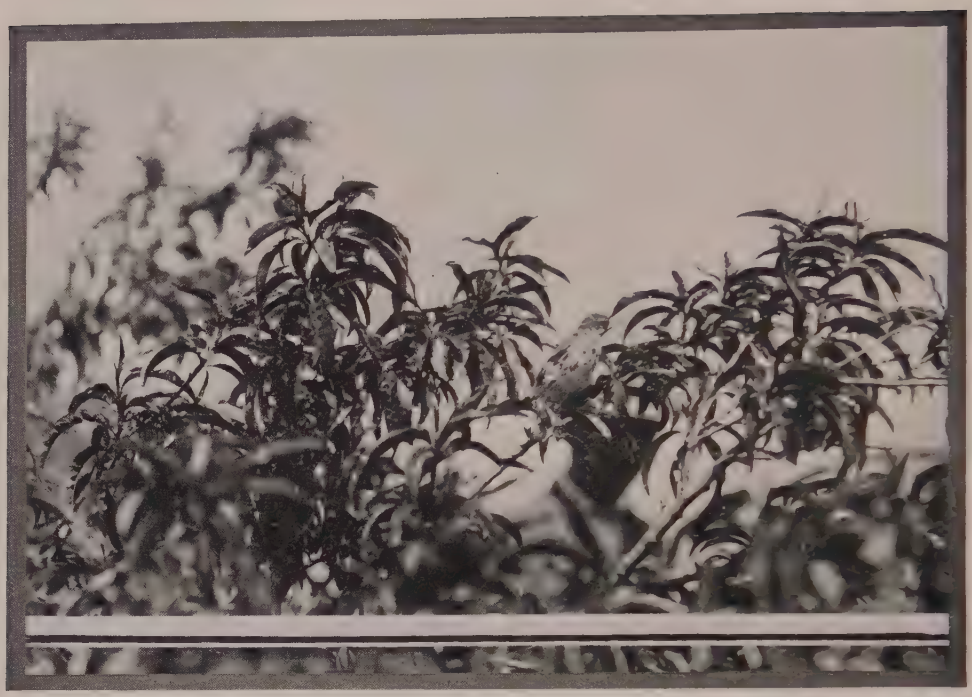
"*Los Colibris, September 22, 1912:* There is such a thing as too

much Mockingbird. His song, save when set on fire by the passion of springtime, may be characterized as a bit too noisy, and his behavior is, on occasion, anything but gentlemanly. This morning a glorious Meadowlark lighted on the tipmost branch of one of our live oak trees, breasted the sunshine and began to gurgle ecstatic reminiscences of springtime. There was music in his heart and magic in his throat, and for all he played with the soft pedal on, the face of the listener cleared and 'his herte gan swell.' Then, all at once, a jealous Mockingbird levelled a glance of hate at the gifted visitor and bade him begone. Suiting the action to the word, he drove the Lark off, pained and crestfallen. A gentle Mourning Dove had, meanwhile, taken refuge in the center of the tree, or perhaps she had come to listen to the cooling lark song. Anyhow, her the vixenish Mockingbird sought out and drove forth with scurrilous reproach. A pair of California Woodpeckers, however, stood their ground when attacked, and gave as good as they got both in abuse and blows. But the Mocker does not shine always as a gentleman! (There were seven Mockingbirds in the yard at the time, and it may be that some stirring of the parental, protective instinct moved the passion of the ugly Mocker)."

When the young birds are hatched out, the Mockingbirds become the most jealous and aggressive of guardians. Not content with persecuting all other birds and driving cats out of bounds, they quarrel with their most intimate human friends, no matter of how long standing. The ordinary note of apprisal, *choop* or *tsook*, comes out like the crack of a whip, beyond imitation, the most intense and upbraiding sound of which a California bird is capable. If the danger is very real, the birds fall back on an ancestral Thrasher cry, *choory*—sometimes piteously prolonged, *choooory*—and this is moving enough, but they spoil it all by floods of those mocking *yăăă* cries, which arouse only resentment.

Once a pair of Mockers built in the live oak tree hard beside my study door. All went well enough until the youngsters were leaving the nest (because I pretended not to know); but when they were a-wing, or at least a-crawl, instead of feeding their babies with diligence, or spiriting them away to what they might consider safer quarters, this precious pair spent most of their time scolding members of my family, or berating my guests. I was invariably set upon the moment I stepped out of the study. If the attack could be delivered from behind, the bird swooped down suddenly, and when almost touching my head exploded in a volley of *yăăă*s, which were fairly insulting. All of our movements in the hinder portion of our yard were dogged and protested for a week or more, and until the joke nearly wore our patience threadbare.

It is the greatest sport of all, though, to see the Mockingbird dis-



Taken in Los Angeles County *Photo by the Author*

A PEACHY POSE

cipline the family cat. If Tabby is docile or wise, she takes to cover forthwith; but if she pauses to "sass back," the Mockingbird rises gloriously to the occasion. With mocking cries and jabs, whether of beak or claw, which are at least sufficient to make the fur fly, the winged fury returns again and again to the attack. I have seen a perfectly respectable family cat spitting and howling with vexation under these humiliating assaults, until the very orange trees shook with laughter. The game is being evened up for once.

What the Mockingbirds eat is only a matter of curious interest—insects and wild fruits chiefly. If they required avocadoes or poached eggs on toast (eggs are ninety-five cents a dozen now, remember), we would furnish them cheerfully. It is surmised that if the range of the Mockingbird ran more strongly northward, some harm might be done to cherries, and the like; but as it is, there is absolutely no complaint in the citrus belt, and the good accomplished by this very domestic purveyor of bugs and grubs is quite considerable. Mistletoe berries are a staple article of diet wherever found, and the birds eat the yucca and cactus fruits of the desert, no less than the pepper berries of civilization.

The distribution of the Mockingbird has been the subject of no little

inquiry. Dr. Grinnell[1] concluded a dozen years ago that it had increased about five times in numbers throughout the Pacific slope of Los Angeles County. There has certainly been a marked increase during my twelve years' residence in Santa Barbara, which is rated an extreme section of the bird's southern and residential range. In general, it may be said that the bird profits by the introduction of cultivation, and so long as no untoward event arises, we may expect an increasingly heavy population throughout those portions of California which do not suffer unduly from either heat or cold. In areas liable to frost, such as the elevated Owens Valley, the birds are present in summer only; while such as are found freely in winter upon the Mohave and Colorado deserts are surmised to be northern breeders only. A rather anomalous condition exists in the Pacific-bordering counties from Marin County south, for here Mockingbirds turn up irregularly in fall and winter only, adventurers, perhaps, from the crowded interior.

No. 146

Sage Thrasher

A. O. U. No. 702. **Oreoscoptes montanus** (Townsend).

Synonyms.—Sage Mocker. Mountain Mockingbird (early name—inapropos).

Description.—*Adults:* General plumage ashy brown, lighter below; above grayish- or ashy-brown, the feathers, especially on crown, streaked mesially with darker brown; wings and tail dark grayish brown with paler edgings; middle and greater coverts narrowly tipped with whitish, producing two dull bars; outer rectrices broadly tipped with white, decreasing in area, till vanishing on central pair; lores grayish; a pale superciliary line; cheeks brownish varied by white; underparts whitish tinged with buffy brown, most strongly on flanks and crissum, everywhere (save, usually, on throat, lower belly, and under tail-coverts) streaked with dusky, the streaks tending to confluence along side of throat, sharply distinguished and wedge-shaped on breast, where also heaviest; bill blackish paling on mandible; legs and feet dusky brownish, the latter with yellow soles; iris lemon-yellow. *Immature birds* are browner and more decidedly streaked above; buffier and more broadly streaked below. Length 203-222.3 (8.00-8.75); wing 97 (3.82); tail 90 (3.54); bill 16.4 (.65); tarsus 30.5 (1.20).

Recognition Marks.—Towhee size; ashy-brown plumage appearing nearly uniform at distance, but underparts showing abundant spotting at near range; sage-haunting habits; impetuous song.

[1] "Distribution of the Mockingbird in California," The Auk, Vol. XXVIII., July, 1911, pp. 293-300.

SAGE THRASHER

Nesting.— *Nest:* A substantial structure of thorny twigs (*Sarcobatus* preferred), sometimes slightly domed, with a heavy inner cup of fine bark-strips (sage); placed without attempt at concealment in sage-bush or greasewood. *Eggs:* 4 or 5; rich dark bluish green (niagara green), heavily spotted or blotched with chocolate and "egg-gray"—among the handsomest. Av. size 24.9 x 18 (.98 x .71). *Season:* May 1–June 15; one or two broods.

General Range.—Western United States and southern British Columbia. Breeds in the artemisia of Upper Sonoran and Lower Transition from south-central British Columbia south to east-central California and east to central Montana, western Nebraska, and northern New Mexico. Winters from southern California and central

Texas south to northern Mexico and Cape San Lucas, and casually to Guadalupe Island.

Distribution in California.—Breeds locally in the high Upper Sonoran, sagebrush areas, east of the Sierra Nevada, south to the Panamint Mountains. Also sparingly in isolated (?) colonies southwest of the Sierras; Bakersfield (Swarth); Walker Pass (Grinnell); Rockwood Valley, Ventura County (Willett). Winters on the southeastern deserts and sparingly in the San Diegan district north to Santa Paula (Evermann).

Authorities.—Gambel (*Mimus montanus*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 113 (Calif.); *Coues*, Birds Col. Val., 1878, p. 48 (syn., desc., life hist.); *Fisher*, N. Am. Fauna, no. 7, 1893, p. 126 (localities in s. e. Calif.); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 99 (status in s. Calif.; breeding near Mt. Pinos); *Stone*, Condor, vol. xviii., 1916, p. 9 (hist. of disc.).

IN A LAND so blessed with arid and semi-arid vegetation, we are apt to overlook the virtues of that homely plant, the "sage" (*Artemisia tridentata*). To be sure, its area of maximum distribution lies to northward and eastward, but we have here and there wholesome touches of it; while upon our eastern, and especially our northeastern borders lie great areas which entitle California to recognition among the Also Blest. It is a wonderful weed, not alone for its pungent odor—the sweetest of life's bitters—but for its hospitality, its sturdy heroism, and, above all, for its fidelity—unflinching in its task of covering the hills, be they never so unending. I *love* the sage! So does our hero, miscalled, "*Oreoscoptes*," "Mountain Viewer." Call him rather *Agapatos Artemidos*, Beloved of Artemis, from whom his favorite flower is named. Born of the sage, he has no outlook beyond it, and needs none. Listen!

The hour is sunrise. As we face the east, heavy shadows still huddle about us and blend with the ill-defined realities. The stretching sage-tops tremble with oblation before the expectant sun. The pale dews are taking counsel for flight, but the opalescent haze, pregnant with sunfire, yet tender with cool greens and subtle azures, hovers over the altar, waiting the concomitance of the morning hymn before ascent. Suddenly, from a distant sage-bush bursts a geyser of song, a torrent of tuneful waters, gushing, as it would seem, from the bowels of the wilderness in an ecstasy of greeting and gratitude and praise. It is from the throat of the Sage Thrasher, poet of the bitter weed, that the tumult comes. Himself but a gray shadow, scarce visible in the early light, he pours out his soul and the soul of the sage in a rhapsody of holy joy. Impetuous, impassioned, compelling, rises this matchless music of the desert. To the silence of the gray-green canvas, beautiful but incomplete, has come the throb and thrill of life,—life brimful, delirious, exultant. The freshness and the gladness of it touch the soul as with a magic. The heart of the listener glows, his veins tingle, his face beams.

He cannot wait to analyze. He must dance and shout for joy. The wine of the wilderness is henceforth in his veins, and drunk with ecstasy, he reels across the enchanted scene forever more.

And all this inspiration the bird draws from common sage and the rising of the common sun. How does he do it? I do not know. Ask Homer, Milton, Keats.

Taken in Idaho *Photo by Rust*

NEST AND EGGS OF SAGE THRASHER

The Sage Thrasher appears to live life in its ultimate simplicity, for there is no other bird bred amidst more uniform surroundings; and yet if we could know, I suppose life would seem to be made up of pleasant variety enough—a thousand sorts of bugs to choose for food, a thousand fair ladies from whom to win a mate, and twice ten thousand times ten thousand sage-bushes, any one of which is fit to support that modest cradle which shall house his children. What d'ye lack, my masters?

Recollections of the Southland have prompted Taylor to say in his Nevada report:[1] "To a considerable extent the birds resemble the true Mockingbird (*Mimus polyglottos leucopterus*) as regards habits of

[1] Field Notes on Amphibians, Reptiles and Birds of Northern Humboldt County, Nevada, by Walter P. Taylor U. of C. Pub. in Zool., Vol. 7, No. 10, 1912, pp. 413-416.

movement and song. When running along the ground the tail is held in much the same manner, and we noted that they preferred running along the ground to flying. The pose while singing and the manner of flight, also remind one of the Mockingbird."

While actually engaged in nesting the bird gives over all attempts at song. So great is the irregularity of the nesting season, however, even among local birds, that two or three appear to be in song continually through the breeding time; and thus a very inadequate idea of the birds' actual numbers is obtained. At the close of the season, or when the young are able to fly well, the birds, all absolutely silent now, resort in numbers to the hillside springs and brushy draws to feed on berries,—wild currants, wild gooseberries, and to a lesser extent, service berries. This fondness for small fruit has betrayed the birds into conspicuous mischief in the case of isolated ranches and pioneer reclamation projects. Almost devoid of fear, the birds troup into the gardens in late July and August to strip the currant bushes or blackberries, and later the grape-vines. The transformation from shy, elusive poet of the sage, to stolid glutton of the back-yard garden, is as complete as that which overtakes the minstrel Bobolink, and makes him a prosaic "rice-bird."

If time allowed, I should like to sing a little pæan to the Sage Thrasher's egg, easily the most beautiful among those of an endowed family, the *Mimidæ*, and one of the handsomest of all eggs. The ground-color of this gem is niagara green, or beryl green, and it is half covered with bold spots of liver-brown, with some adumbrations of mars brown. So high an opinion do some of the birds have of them, that I have seen nests completely roofed over with twigs; but this custom does not seem to be established.

No. 147

American Dipper

A. O. U. No. 701. **Cinclus mexicanus unicolor** Bonaparte.

Synonyms.—Water Ouzel. American Water Ouzel.

Description.—*Adults in spring and summer:* General plumage slaty gray or deep neutral gray, changing on pileum to hair-brown of remaining head and neck; wings and tail darker, blackish slate; eyelids touched with white. Bill black; feet yellowish. *Adults in fall and winter, and immature:* Feathers of underparts margined with whitish, and some whitish edging on wings. Bill lighter, brownish. *Young birds* are much lighter below; the throat is nearly white and the feathers of remaining under plumage are broadly tipped with white, and have wash of rufous posteriorly; tips of

wing-feathers and, occasionally, tail-feathers extensively white. Bill yellow. Length about 178 (7.00); wing 90 (3.54); tail 50 (1.97); bill 17.3 (.68); tarsus 28.5 (1.12).

Recognition Marks.—Sparrow size but *chunky*, giving impression of a "better" bird. Slaty coloration and water-haunting habits distinctive.

Nesting.—*Nest:* A large ball of green moss lined with fine grasses or dead leaves, and with entrance on side; lodged among rocks, fallen timber, roots, etc., near water. *Eggs:* 4 or 5; pure white. Av. size 1.02 x .70 (25.9 x 17.8). *Season:* April–June; one or two broods.

General Range.—The mountains of western North America from the northern boundary of Mexico and northern Lower California to northern Alaska. Resident.

Distribution in California.—Common resident along all permanent streams in the timbered mountains. Found on both slopes of the Sierra Nevada in the Transition and Boreal zones, on the Warners, San Jacintos, San Bernardinos, etc. Breeds at lower levels in all the coast ranges, save the inner arid members, and from Ventura north in numbers approximately increasing with humidity. Retires to somewhat lower levels in winter, especially in the Sierras.

Authorities.—Audubon (*Cinclus americanus*), Synopsis Birds N. Am., 1839, p. 86 (n. Calif.); *Coues*, Birds of the Northwest, 1874, p. 10; *ibid.*, Birds Col. Val., 1878, p. 84 (syn., hist., habits, etc.); *Shufeldt*, Bull. Nutt. Orn. Club, vol. vii., 1882, p. 213, fig. (osteology); *Muir, John*, The Mountains of California, 1894, p. 276; *Stejneger*, Smithson. Misc. Coll. (Quart. Issue), vol. xlvii., 1905, p. 421 (monogr.; distr. of the genus *Cinclus*); *Bryant, H. C.*, and *Bryant, Amy M.*, Condor, vol. xvii., 1915, p. 98 (desc. nest; habits and actions of adults and young).

"ADVANCING and prancing and glancing and dancing,
And dashing and flashing and splashing and clashing;
And so never ending, but always descending,
Sounds and motions forever and ever are blending,
All at once and all o'er, with a mighty uproar;
And this way the Water comes down at Lodore."

But the scene of aqueous confusion was incomplete unless a leaden shape emerged from the spray, took station on a jutting rock, and proceeded to rub out certain gruff notes of greeting, *jigic, jigic, jigic*. These notes manage somehow to dominate or to pierce the roar of the cataract, and they symbolize henceforth the turbulence of all the mountain torrents of the West.

The Water Ouzel bobs most absurdly as he repeats his inquiry after your health. But you would far rather know of his, for he has just come out of the icy bath, and as he sidles down the rock, tittering expectantly, you judge he is contemplating another one. Yes; without more ado the bird wades into the stream, where the current is so swift you are sure it would sweep a man off his feet. He disappears beneath its surface and you shudder at the possibilities; but after a half minute

Taken in Fresno County *Photo by the Author*

A BIT UNDECIDED

of suspense, he bursts out of the seething waters a dozen feet below, and flits back to his rock, chuckling cheerily. This time, it may be he will rest, and you have opportunity to note the slightly *retroussé* aspect of the beak in its attachment to the head. The bird has stopped springing now, and stands as stolid as an Indian, save as ever and again he delivers a slow wink, upside down, with the white nictitating membrane.

Some discussion has been evoked as to the Ouzel's mode of progression in or under the water, and I was inclined myself, for some years, to believe that the bird did not use its wings, save in reaching the surface of the water when the bottom of the stream had been quitted. But the evidence seems to be against me. The fact is that the bird progresses by all means, or any. It is absolutely at home over, on, in, or under the water. Sometimes it lights upon the surface of a stream and paddles about quietly, using only its feet for propulsion. Again, or when "game" is sighted, it flounders about rapidly by means of its wings; and it is certain that in diving the wings are chiefly relied on. The breasting of a mountain stream is no longer an adventure to be entered upon circumspectly. The water is the bird's instinctive refuge

and I have, on several occasions, surprised flying birds who plumped instantly into the water, rather than attempt to change the direction of their flight.

The Water Ouzel feeds largely upon the larvæ of the caddis, or "May" fly, known locally as periwinkles. These are found clinging to the under surface of stones lining the stream, and their discovery requires quite a little prying and poking on the bird's part. Great numbers of the adults of this and other forms of *Ephemeridæ* fall upon the surface of the water, and are snapped up before the greedy trout can get them.

The Ouzels are also said to be destructive to fish fry, insomuch that the director of a hatchery in British Columbia felt impelled to order the destruction of all the Ouzels, to the number of several hundred, which wintered along a certain protected stream. This was a very regrettable necessity, if necessity it was, and one which might easily lead to misunderstanding between bird-men and fish-men. We are fond of trout ourselves, but we confess to being a great deal fonder of this adventuresome water-sprite.

Taken in Fresno County *Photo by the Author*

A FULL MARKET BASKET

Taken in Fresno County Photo by the Author

THE AMERICAN DIPPER AT HOME

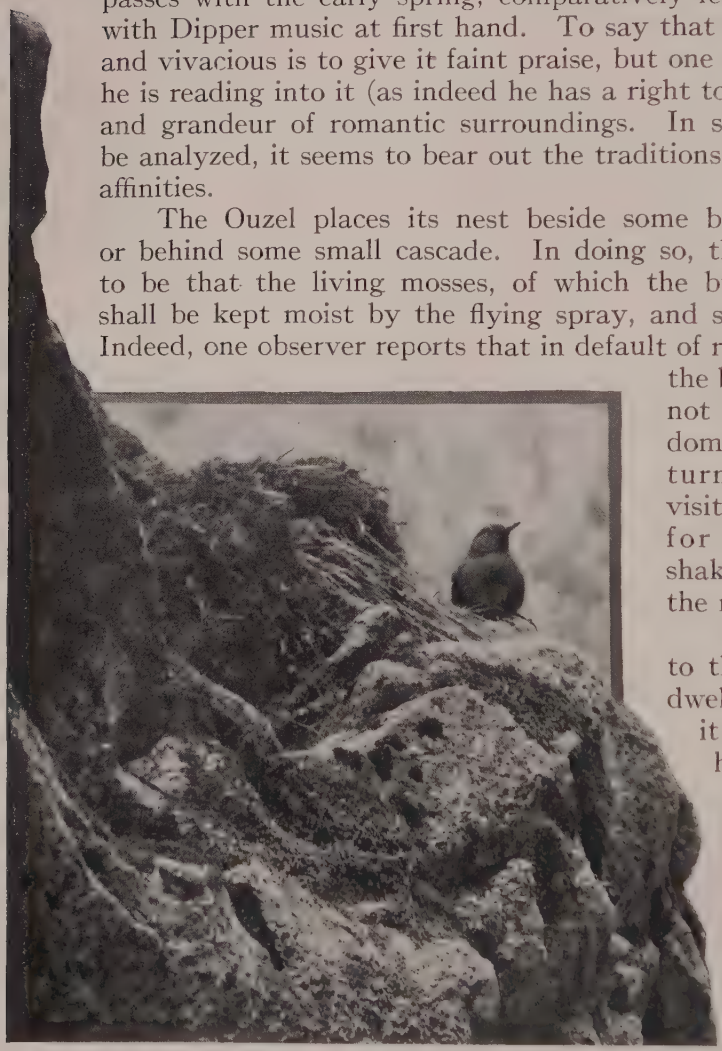
Apropos of visitations to hatcheries, another observer, also in British Columbia, tells how a bird one day found his way into the hatching-house through an aperture which admitted the water from a flume outside. Although the top of this hole was three inches under water, the bird, frightened by the strange surroundings, made for it instantly and so escaped.

The Ouzel is non-migratory, but the summer haunts of the birds in the mountains are largely closed to them in winter, so that they find it necessary at that season to retreat to the lower levels. This is done, as it were, reluctantly, and nothing short of the actual blanketing of snow or ice will drive them to forsake the higher waters. The bird is essentially solitary at this season, as in summer, and when it repairs to a lower station, along late in November, there is no little strife engendered by the discussion of metes and bounds. In the winter of 1895-6, being stationed at Chelan, in Washington, I had occasion to note that the same Ouzels appeared daily along the upper reaches of the Chelan River. Thinking that such a local attachment might be due to similar occupation down stream, I set out one afternoon to follow the river down for a mile or so, and to ascertain, if possible, how many bird-squatters had laid out claims along its turbulent course. In places where there was an unusually long succession of rapids, it was not always possible to decide between the conflicting interests of rival claimants, for they flitted up and down, overlapping by short flights each other's domains; but the very fact that these overlappings often occasioned sharp passages at arms, served to confirm

the conclusion that the territory had been divided, and that each bird was expected to dive and bob and gurgle on his own beat. Thus, twenty-seven birds were found to occupy a stretch of two miles.

In such winter quarters as these the first courting songs are to be heard. As early as Christmas the birds begin to tune up, and that quite irrespective of weather. But their utterances, at best, are comparatively rare; and from the circumstance that their song impulse passes with the early spring, comparatively few people are acquainted with Dipper music at first hand. To say that the song is clear, strong, and vivacious is to give it faint praise, but one suspects that in listening he is reading into it (as indeed he has a right to do), much of the charm and grandeur of romantic surroundings. In so far as the strain may be analyzed, it seems to bear out the traditions of Thrasher and Thrush affinities.

The Ouzel places its nest beside some brawling stream, or near or behind some small cascade. In doing so, the chief solicitude seems to be that the living mosses, of which the bulky globe is composed, shall be kept moist by the flying spray, and so retain their greenness. Indeed, one observer reports that in default of ready-made conveniences, the bird itself turns sprinkler, not only alighting upon the dome of its house after returning from a dip, but visiting the water repeatedly for the sole purpose of shaking its wet plumage over the mossy nest.



Taken in Fresno County *Photo by the Author*

FAIRLY RECONCILED

While one is accustomed to think of the Dipper as a dweller of the high Sierras, it is pleasant to remember how accessible some of its nearer haunts really are. For example, take this note: "*Pasadena, May 11, 1911:* By the magic of the auto we are whisked from the lowland lake (Lake Wilson) where the morning was spent, and within 20 minutes are

losing ourselves in the romantic depths of one of those wild cañons which pierce the San Gabriel range. We have twisted about for a mile or so following the tortuous course of a fierce little mountain torrent, and now find ourselves confronted by a wall of rock a hundred feet or so in height, down the face of which a waterfall has cut a notch to within 40 feet of the bottom. We had scarcely seated ourselves in the bottom of the glen when the Water Ouzel made her appearance, and after a few genuflections made straight for her nest, a massive ball of moss some 15 feet above the pool and 10 feet to one side of the fall proper. The shrill outcries which followed upon her arrival left no doubt as to the occupancy of the nest. We visited the spot later and found a bunch of callow young, too young to be worried about our appearance, but not too young to 'holler.' Their voices are amazing shrill—and good need, when we consider the roar of the waterfall hard by."

Taken in the Yosemite BELOW VERNAL FALLS *Photo by the Author*

The nest figured in our illustrations was found on the South Fork of the Kings River near Kenawyers, July 11, 1913. Unfortunately, it lay in shadow on the north side of the rock, so that the photographic opportunities involving the nest itself were disappointing. When we finally

established ourselves with the cameras, we found the Ouzel infants with their heads thrust out of the entrance and gasping for breath, for the day was very warm. The female fed almost immediately, and it was very amusing to see her stretching to the utmost from a point below, as though the youngsters must be fed whether or no, but she wasn't coming a mite nearer the ogres than necessary. Thereafter, on the occasions of several visits, she tarried a long time without feeding, in spite of the outcries of her children only a foot away. Thenceforth, also, she insisted upon obtaining food from nearby waters as though to keep an eye on me. Several periods of comparative inactivity were spent in the offing, especially upon the pebbly shore opposite.

It was noteworthy that the male appeared at no time with the female, but after an hour's watching an exchange of offices was effected somewhere upstream, and the male took up the duties of feeding. He proved to be more venturesome and more demonstrative, and he voiced his uneasiness from time to time by singing snatches of the old-time spring song. Many of the phrases were rarely delicate and expressive, but none had the strength of mating days.

A parental function no less important than that of feeding—and this is true of most Passerine birds—is the frequent removal from the nest of the juvenile excrement. That this lowly office may be attended with as little unpleasantness as possible, kindly nature has contrived a sort of self-wrapping device, so that the excreta are voided periodically in neat bundles, each enclosed in a viscous, whitish, and not uncleanly sac, or envelope. After each feeding, or each alternate feeding, the attendant parent seizes the fresh-dropped sac, or even receives it into her bill, and takes it off to drop it at some distance. This arrangement doubtless serves a double purpose: that of sanitation, whereby the health and comfort of the offspring is assured; and that of disguising the exact neighborhood of a nest, and so diverting hostile attention, which would otherwise inevitably be attracted by the presence of droppings on the ground below. This latter precaution, at least, would seem to be unnecessary in the case of the Water Ouzel, but it is interesting to note that the parents take unusual precaution instead. Thus, when the fœcal sac is seized in the beak, the bird immediately seeks the stream and dives under water before releasing it. Whether or not this release is followed by some cleansing manipulation of the mandibles, it is impossible to say, but I should judge such to be the fact. No more favorable opportunity for the study of intimate home life exists than in the case of the Water Ouzel. And be assured that the birds are full of "human nature"; that is, they are enough like us in behavior to be understandable. So far from behaving like mere automatons, the birds show artifices, shrewdnesses, tendernesses, as well as

deficiencies, tempers, conceits, and waywardnesses. And above all things else, they show as between themselves those psychological differences which connote individuality. They are always bird *persons*. As such their conduct is unique, variable, unpredictable–and therefore interesting.

In some such light the incident related below[1] by Dr. William Frederic Badé must be regarded. The professor had an Ouzel home under observation behind a waterfall in a small canyon tributary to Kern. After a day or so of peaceful overtures under the guise of a fisherman, he set a camera near the nest. "Such close approach again excited suspicion and alarm. For considerably more than an hour they (the parents) refused to carry food to their nestlings. Then the female began to reconnoitre. Seeing that I was apparently whipping her home pool as I had whipped many another pool in the neighborhood, she decided to risk a visit to her nest with a load of tidbits. The distribution must have been made with unseemly haste, for she immediately appeared again through her doorway of spray. She was, however, in no haste to leave the neighborhood, but lit on a boulder a few feet away and warbled the equivalent of a 'Coast clear' to her lubberly husband, who was still nursing his suspicions on a distant rock in the spring. He would not come. His bill was full of May-flies. A second and a third time she signalled, and now he very circumspectly approached the cascade that hid the nest, flitting hesitatingly from rock to rock until he was almost beside her. But suddenly his fears again overcame his courage and he darted precipitately back to the place from which he had started. He wasn't going to risk his neck, not he! This churlish behavior seemed to rouse the ire of his spouse. Instantly she lit beside him and running her bill several times vigorously into his fluffy plumage she took his catch of May-flies from him and carried them to the hungry nestlings. Her example no less than the little explosion of wifely indignation seemed to recall him to a sense of his duty. My presence was soon ignored and he came and went as regularly as she."

No. 148

Hermit Thrush

No. 148 Alaska Hermit Thrush

A. O. U. No. 759. **Hylocichla guttata guttata** (Pallas).

Synonym.—Kadiak Dwarf Thrush (Ridgway).

Description.—*Adult:* Upperparts plain grayish brown (hair-brown to near broccoli brown), changing on rump to dull cinnamon-brown of upper tail-coverts and

[1] "The Water Ouzel at Home," Sierra Club Bulletin, Vol. V., No. 2, p. 105.

tail; a prominent whitish orbital ring; sides of head mingled grayish brown and dull whitish; underparts dull white, clear only on belly; sides of throat, and breast, tinged with pale creamy buff; sides and flanks washed with pale grayish brown; throat, in confluent chain on side, and lower throat, chest, and upper breast, spotted with dusky or sooty, the spots narrow and wedge-shaped on lower throat, broadening and deepening on chest, fading and becoming rounded on breast. Bill drab-brown, paling on mandible basally; feet and legs brown; iris dark brown. *Winter specimens* are brighter and more strongly colored throughout. *Young birds* are streaked with buffy above, and the spotting of underparts inclines to bars on breast and sides. Length 160-188 (6.30-7.40) [Skins 154 (6.06)]; wing 88 (3.46); tail 64 (2.52); bill 12.7 (.50); tarsus 29 (1.14).

Recognition Marks.—Sparrow size; cinnamon of tail and upper coverts contrasting more or less with duller brown of remaining upperparts. Larger, paler, and grayer than next form.

Nesting.—Does not breed in California. *Nest* and *Eggs* as in *H. g. sequoiensis.*

Range of *Hylocichla guttata.*—"Northern North America and mountains of western United States; in winter southern United States, Cuba, and Mexico, to tableland of Guatemala" (A. O. U. Com.).

Range of *H. g. guttata.*—Western North America. Breeds in Alaska, chiefly in the Hudsonian zone, from the south-central portion south to Kadiak Island and Cross Sound. Winters south to Lower California and Mexico, and occurs during migrations east to Nevada and New Mexico.

Distribution in California.—A common winter resident practically throughout the State, but most common in the San Diegan district.

Authorities.—Gambel (*Turdus nanus*), Proc. Acad. Nat. Sci. Phila., vol. i., 1843, p. 262, part (Rocky Mts. and Calif.); *Belding*, Proc. Calif. Acad. Sci., ser. 2, ii., 1889, p. 63, part (biog.); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 92 (food); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 101 (s. Calif. islands); *Grinnell*, Univ. Calif. Chronicle, Oct., 1921, p. 392 (manner of seeking food).

No. 148a Dwarf Hermit Thrush

A. O. U. No. 759c. **Hylocichla guttata nanus** (Audubon).

Synonyms.—Pacific Hermit Thrush. Sitkan Dwarf Thrush (Ridgway).

Description.—"Similar to *H. g. guttata*, but coloration darker and browner, the color of back, etc., more sepia brown, upper tail-coverts more russet, tail more chestnut, and spots on chest larger and darker" (Ridgway). Adult male: wing 86.8 (3.42); tail 65.5 (2.58); bill 12.2 (.48); tarsus 28.8 (1.13).

Recognition Marks.—As in *H. g. guttata.*

Nesting.—As in *H. g. sequoiensis.*

Range of *H. g. nanus.*—Pacific Coast district. Breeds in Canadian and Transition zones from Cross Sound, Alaska, south to southern British Columbia. Winters south to California, Arizona, and New Mexico.

Distribution in California.—Common winter resident throughout the humid coastal strip, broadly defined. Diminishes in numbers south of Santa Barbara. Recorded at Palm Springs (Grinnell).

Authorities.—Gambel (*Turdus nanus*), Proc. Acad. Nat. Sci. Phila., vol. i., 1843, p. 262, part; *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1909, p. 240 (s. e. Alaska; desc. nest and eggs); *ibid.*, Pac. Coast Avifauna, no. 11, 1915, p. 170 (occurrence in Calif.; crit.).

Taken in Mono County *Photo by the Author*

LAKE MARY AND MAMMOTH CREST

SIERRA HERMIT THRUSHES ARE NESTING THROUGHOUT THE TIMBERED SECTION SHOWN

"*LOS COLIBRIS*, Feb. 14, 1914:—At one of the clock and 74 degrees Fahrenheit the miracle happened—the Hermit Thrush broke his long silence and called softly to his Sierran love. Oh, voice of ecstasy and all longing! Oh, voice of aspiration and all fulfillment! Never do I hear thee but I think first of an angel choir, and only conclude after moments of hesitation that it is a voice of earth. Where hast thou suffered? and who gave thee victory? and where is that land of utter rest thou singst about? Thou art a thing apart, a seeking of the Infinite made audible, and I dare not call thee bird. More than half I am afraid of thee, as though that gentle mien might veil a soul too pure for mortal ken, and as though a glance, meant mildly, might seem all too covetous to one of spirit so exalted. It was only a reminiscent snatch, a *sotto voce* trial of that glory song which is to be, but it sounded from a live oak and it thrilled to very prickling the cockles of a heart grown chill with winter and work. Work! Oh, rather, rest! achievement! victory! Oh, crowned hero in a myrtle bower! Oh, lovers, engarlanded with arms entwined! Oh, breath of eternal summer blown from Orion's peaks! Oh, ecstasy of heaven apportioned to one mortal here! Oh,

Taken at Los Colibris *Photo by the Author*

AN EERY POSE

keeper of the heavenly voice, blow not in vain, for as many as thrill to that voice know God—or shall know Him."

"*Los Colibris*, March 12, 1915: —The call to prayers can come from no throat sweeter or more devout than that of the Hermit Thrush. A certain pepper tree next the studio is forever consecrated as a chapel, because this gentle exile from the heavenly wilderness tried the strings of his harp and found them still resonant. Oh, sweeter than our best imaginings and purer than the resolves of a purged heart come those limpid tones of bliss. Ah! Hermit, I marvel and I tremble before you. If the Master hath taught your little heart so much of blessedness, what shall be for the Sons of God?"

To speak soberly of the Hermit Thrush as a mere bird is scarcely possible to one whose feeling for it is akin to worship. But in the name of Science we will try to tear ourselves away from the altar. We will put on our working clothes and repair to Nature's laboratory, the great out-of-doors.

Over several thousand square leagues of west-central and southern California one will find the Dwarf Hermit Thrush (or, upon the border, the scarcely distinguishable Alaska Hermit Thrush) among the common birds of the open chaparral or the more secluded under shrubbery of the forests. If there is shade, one sees scarcely more than a moving shape, a little browner than the earth, but scarcely outlined in the uncertain light, start up from the ground with a low *chuck* and pause for a moment on a fallen branch. Before you have made out definite characters, the bird flits to a branch a little

higher up and more removed, to stand motionless for a minute or so, or else to chuckle softly with each twinkle of the ready wings. By following quietly one may put the bird to a dozen short flights without once driving it out of range; and in so doing, he may learn that the tail is abruptly rufous in contrast with the olive-brown of the back, and that the breast is more boldly and distinctly spotted than is the case with the Russet-backed Thrush.

Perhaps the most prominent characteristic of the Hermit Thrush, and the one which does most to remove it from the commonplace, is the incessant twinkling of the wings—the action is so rapid and the return to the state of repose so incalculably quick that the general impression or silhouette is not thereby disturbed; but we have an added feeling of mobility or tensity on the part of the bird which gives one the impression of spiritual alertness, a certain high readiness. I tried on a time to count these twinkles, with the compensatory flirt of the tail, as the bird was hopping about on the ground in my rose garden. The movements occurred about once per second, yet oftenest in groups, and so rapidly, that not a twentieth part of the bird's time seemed so consumed.

Taken in Inyo County *Photo by the Author*

A NESTING HAUNT OF THE SIERRA HERMIT THRUSH

The introduction of pepper trees into southern California has put the birds in our debt, and has brought them a little more into public notice. At Los Colibris (and I speak of our home acre only because it is typical) when the pepper trees were in heavy bearing, we have had as many as forty Hermit Thrushes wintering at a time. Some of these, at least, return every year and I am quite sure from certain mannerisms that one bird came four years in succession. Arriving as they do about the 20th of October, they depend chiefly upon an insect diet for a few days, but when a nippy morning comes, a month or so later, they tackle the pepper berries, and rather awkwardly at first. It is evidently new business for some of them, and they make hard work of it. One bird that I particularly observed would fly up to a bunch, hover a moment in midair, snatch a berry, and return to a more secure position. This he did repeatedly, without once endeavoring to alight on the berry cyme itself, or trying to find a place where he might eat his fill unmolested. Another dashed up and fell to eating the berries as they lay strewn upon the ground. He fed very daintily, taking care in each instance to discard the red husk, but he seemed rather pleased than otherwise with my attention, for he hopped nearer and nearer until he stood within seven feet. He attended strictly to business though, and had eaten, I should say, 16 or 18 berries; whereupon, considering meditatively, and deciding that he had enough aboard for once, he flashed away.

One of our garden faucets drips incessantly and this is the favorite drinking place of the Hermit. A bird will light on the faucet and, stooping over, will pluck the drops one by one as they fall. One morning I saw five birds at a time either waiting their turn or else making suggestive dives at the fellow who seemed to be tarrying too long at the faucet. And it was ten to one the fellow who was having his "innings" defended himself with spirited snapping of his beak.

Besides the frequent low *chuck*, or *choop choop*, with which the bird notes advance or intrusion, one hears a harsh *murry* of protest or alarm, the same with which the Sierran birds rebuke those who meddle with their nests. On several occasions, also, I have heard a sharp piercing *key'ring* note of alarm. One such I traced to a bird who was standing disconsolate and complaining, for no apparent reason, while her mate fed on the pepper berries near by. I recall having heard this sound, also, in the mountains at a time when the Thrush's nest was threatened. But those sounds are of earth and forgettable. Not so the high requiem which is Heaven's own.

A Hermit Thrush's Minute: Santa Barbara, Jan. 2, 1920. I had been gazing abstractedly out of the north window of my study. This placid brown ghost appeared on the ground just outside the wire fence

running parallel to the study, and some five feet away from it. I was startled by the sudden apparition of the white-breasted bird, streaked though he was with gentle russets. The bird could not see me through the screen, so his movements were perfectly natural and ordinary. Moreover, in the minute which I record, nothing remarkable nor in any way extraordinary occurred. It was only an average minute. Full forty seconds of the time was spent at rest, as much as the Hermit Thrush ever does rest, viz., standing and gazing about alertly, but fearlessly and composedly, and punctuating its thoughts momentarily by the wing-twinkle, which is so rapid that the eye may only guess whether the wings have really quitted the body. In one station which the bird occupied, being not over seven feet from me, I could, by closing one eye and focussing the other upon a closely placed background of greenery, note the extreme limit of the wing-motion. The tip, in each instance, traveled at least two inches from the body; yet the return was so instant and the dress so quickly composed that no detail of the readjustment could be traced.

At least thirteen seconds of the time were spent hopping from place to place—first, up from the ground beyond to a mesh in the fencing sufficiently large for the bird's passing—this involved a little struggle with interfering weed-stems to achieve the position—a momentary

Taken in Inyo County *Photo by the Author*

NEST OF SIERRA HERMIT THRUSH IN WILLOW

pause on the wire, and a dive which had to clear the fence before the wings could be spread. There were numerous zig-zag and quartering motions across the face of the ground, each punctuated by flashing dabs at the surface, followed by a little movement of swallowing and a longer twinkle-winged pause. Once, the bird hopped up on the window-ledge where he had either spied, or suspected, the presence of a morsel. After alighting, and previous to the motion of seizure, there was a little pause, wary but dignified, in which the bird took account of the possible effect of its general action upon the neighborhood. Then an instant dab secured the prize—a spider, I think—an effort of swallowing, with just a gleam of satisfaction, a period of rest and wing-twinkling, and then a return to the ground.

The consumption of food, distributed over eight or ten episodes, did not occupy above seven seconds, and I think not above four.

It is a prosaic register of a prosaic minute, yet within that time, or within a tenth of that time, the bird managed to convey to me a sense of power, and poise, and self-sufficiency, which not even a philosopher could surpass. There was gentility and high breeding, as well as courage and discretion there. Above all, there was a sense of life, steadily controlled, yet free, flashing, electric, with boundless reserves. And think how much happens in the bird's minute! Doubtless this charming creature is geared up to a quicker time schedule than we. Its history runs a cycle while ours is groping from cog to cog. The consciousness of the bird is unimpeded by a sense of the drag of things. It is unoppressed by the mesh of events, past or impending. There is, doubtless, always present the fear thought, the contingency of evil, but for this the bird feels competent, and it pays merely the tribute of alertness. The reaction of the momentary fear is the instant joyous reassertion of freedom, with proof as instant.

The bird's physical satisfactions are, on the other hand, short-lived. It is not, after all, wholly involved nor even largely occupied in the "eternal quest" for food. The necessity of food is taken for granted, but the gratifying of appetite does not bulk large in the bird's day. Even in the minute which is interspersed with it, there is ample time for a sort of optimistic leisure, a wooing of the soul, perhaps, or at least a manifest enjoyment of outlook. Life is full and sweet and friendly. Life is free and engaging, or mildly amusing withal. If I were a bird, I think I would be a Hermit Thrush.

No. 148b Monterey Hermit Thrush

A. O. U. No. 759d. **Hylocichla guttata slevini** Grinnell.

Description.—Similar to *H. g. guttata*, but paler and grayer and much smaller.

Similar to *H. g. sequoiensis*, but much smaller (although with relatively longer tail), and slightly darker and browner. Wing, male, 84 (3.31); female, 81 (3.19); tail, male, 71 (2.795); female, 69 (2.716).

Range of *H. g. slevini*.—Humid coastal strip of California; south in winter to Lower California and Sonora.

Distribution in California.—Breeds locally in the hilly regions of the humid coastal strip from southern Siskiyou County (head of Rush Creek, July 29, 1911, Kellogg) and Humboldt County (Myers' Ranch, June 5, 1921, Mailliard) to Sur River, Monterey County. Grinnell enumerates the following localities, presumably breeding stations: Sherwood, Mendocino County; South Yolla Bolly Mountain; Gualala River and Cazadero, Sonoma County; Britano Creek and Big Basin, Santa Cruz County; Pacific Grove and Point Sur, Monterey County; to which I add three more: 12 miles northwest of Harris, Humboldt County, June 15, 1916; Bridgeville, Humboldt County, July 1, 1916; Knob, Shasta County, July 3, 1916. Has been taken during migrations at Raymond (Grinnell); Redlands (Bishop); and Pasadena (Grinnell, Daggett).

Authorities.—Heermann (*Turdus nanus*), Rep. Pac. R. R. Surv., vol. x., pt. iv., 1859, p. 45 (breeding near San Francisco); *Grinnell*, Auk, vol. xviii., 1901, p. 258 (orig. desc.; type locality Point Sur, Monterey Co.); *Sheldon*, Condor, vol. x., 1908, p. 121 (Sonoma Co.; desc. nest and eggs); *Mailliard*, Condor, vol. xx., 1918, p. 192 (song.).

THERE BE THOSE who care supremely whether one bird's tail is a thirty-second of an inch longer than another bird's tail; and these tell us that the local breeding birds found from Monterey County north to Mendocino have wings a quarter of an inch shorter than birds found in the Sierras, and tails a quarter of an inch longer (think of that!) than those belonging to the Hermits of Southern Alaska. Besides that, they are "paler"! All right, it must have been a "Monterey," for it was the palest Hermit Thrush I ever saw, who suddenly flew toward me, as I strolled along a path at Los Colibris, and alighted at my feet. The action was so unusual that I glanced about quickly, seeking explanation—just in time to see a Cooper Hawk emerge from a nearby thicket, bearing a Robin in its talons.

Ah, that is the grief of the birds who take shelter with us in winter! What with neighbors' cats and Screech Owls and Cooper Hawks, we are always coming upon pathetic little heaps of brown feathers, on the ground or on the horizontal limbs of oak trees. Have a care, you varmints, these are angels you are eating! Expensive diet, I ween, for even a coddled Angora.

One of the happiest experiences of a trip through northern Mendocino County came toward the close of a day, as we were passing through a bit of unbroken fir forest, for here the "Monterey" Hermit Thrushes held forth in melodious numbers. There were no less than six birds within earshot at one time, and one had only to close the eyes to be caught up into Paradise forthwith. Certainly I heard things there "which it is not lawful for a man to utter." After the mountain heights,

I know of no more fitting spot for the hymning of the Hermit Thrush than that provided by one of our stately primeval forests with their dim aisles and lofty pillars.

No. 148c Sierra Hermit Thrush

A. O. U. No. 759e. **Hylocichla guttata sequoiensis** (Belding).

Synonyms.—Western Hermit Thrush. Cascade Hermit Thrush. Mountain Hermit.

Description.—Similar to *H. g. guttata*, but slightly larger and much paler and grayer. Similar to *H. g. slevini*, but decidedly larger and very slightly paler. *Young birds* are streaked with paler buffy above, and are very slightly washed with buffy below—a striking antithesis to the young of *H. g. nanus*, which are heavily tinged with ochraceous buffy below. Length adult (skins): 158 (6.22); wing, male, 92.8 (3.65); female, 90.1 (3.54); tail, male, 71.8 (2.87); female, 67.7 (2.665); bill 13.5 (.53); tarsus 28.5 (1.22).

Recognition Marks.—As in *H. g. guttata*, paler.

Nesting.—*Nest:* Basally of twigs; mesially of bark-strips, grass, rootlets, leaf-skeletons, and moss (sparingly); lining, if any, of rootlets or coiled grasses. *Eggs:* 3 or 4; light niagara green, unmarked. Av. size 21.6 x 16.5 (.85 x .65). *Season:* May–July, according to altitude; one brood.

Range of *H. g. sequoiensis.*—Breeds in Boreal zones from southern British Columbia to high mountains of southern California; south in migrations and in winter to Lower California and Sonora.

Distribution in California.—Summer resident in the Boreal zones of the Sierras north to Mt. Shasta. Also found in the San Bernardino Mountains and in the Warners.

Authorities.—Ridgway (*Turdus swainsoni ustulatus*), Bull. Essex Inst., vol. vi., 1874, p. 172 (w. slope Sierra Nevada, 5000 ft.); *Belding*, Proc. Calif. Acad. Sci., ser. 2, ii., 1889, p. 18 (orig. desc.; type locality, Big Trees, Calaveras Co.); *ibid.*, Bull. Cooper Orn. Club, 1, 1899, p. 21 (desc. nests, etc.); *Barlow*, Condor, vol. iii., 1901, p. 184 (Sierra Nevada; song; desc. nest); *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 130 (San Bernardino Mts.; nest and eggs; meas.; crit.).

No. 148d White Mountains Hermit Thrush

A. O. U. No. 759c, part. **Hylocichla guttata polionota** Grinnell.

Synonym.—Grinnell's Hermit Thrush.

Description.—Similar to *H. g. sequoiensis*, but much grayer ("olive-brown," Ridgway) above; entire coloration paler, or "colder." Av. of 12 males from White Mountains: wing 98.6 (3.88); tail 73.8 (2.90); bill 12.7 (.50); tarsus 29.8 (1.17).

Range.—So far as known, only the White Mountains, in California; but presumably also the Panamint and Inyo ranges and adjoining sections of Nevada.

Authorities.—Fisher, A. K. (*Turdus aonalaschkae auduboni*), N. Am. Fauna, no. 7, 1893, p. 146, part (White Mts.); *Grinnell*, Condor, vol. xx., 1918, p. 89 (orig. desc.; type locality, Wyman Creek, White Mts.).

HE WHO has not in his heart a separate place for the Hermit Thrush is no bird lover. He who has never heard the evening requiem of the

Hermit has missed the choicest thing which Nature in California has to offer. He who, having listened to that song, does not feel a responsive glow and a quickening of the spirit, has need of more than Nature's ministries. He needs most to find his God and to have his sins forgiven.

It is not alone for the lofty associations of Alpine meadow and Sierran grove that we prize the bird, though such choice of setting were gratifying evidence of a poetic nature. It is not for any marked vivacity, or personal charm of the singer that we praise his song; the bird is gentle, shy, and unassuming, and it is only rarely that one may even see him. It is not that he excels in technique such conscious artists as the Catbird, the Thrasher, and the otherwise matchless Mockingbird; the mere comparison is odious. The song of the Hermit Thrush is a thing apart. It is sacred music, not secular. Having nothing of the dash and abandon of Wren or Ouzel, least of all the sportive mockery of the Western Chat, it is the pure offering of a shriven soul, holding acceptable converse with high heaven. No voice of solemn-pealing organ or cathedral choir at vespers ever hymns the parting day more fittingly than this appointed chorister of the eternal hills. Mounted on the chancel of some low-crowned fir tree, the bird looks calmly at the setting sun, and slowly phrases his worship in such dulcet tones, exalted, pure, serene, as must haunt the corridors of memory forever after.

SIERRA HERMIT THRUSH

The associations of timberline, otherwise delectable, are unalterably hallowed by the recollection of that shy, modest presence and that voice "all breathing human passion far above." And although I have dwelt

among the Sierra Hermit Thrushes for happy weeks, I never could get up any enthusiasm for making the bird a subject of scientific inquiry. I have found nests, of course, and left them. Also we may suppose that the birds

Taken in Fresno County *Photo by the Author*

A HAUNT IN THE CENTRAL SIERRAS: ALT. 11,000

eat something or other. Mischa Elman is said to have a weakness for pretzels, and Galli-Curci spends a certain number of hours out of the twenty-four in bed—snores, perchance; but it is not by these things that Art is remembered or the divinity of Song made glorious. I refuse to spy upon the Hermit Thrush, or to prattle of cosmetics and preferences in cheese.

No. 149

Russet-backed Thrush

A. O. U. No. 758. **Hylocichla ustulata ustulata** (Nuttall).

Synonym.—"Wood Thrush" (name properly restricted to *H. mustelina* of the East).

SANTA MARIA
UNION HIGH SCHOOL

Description.—*Adults:* Above olive-brown (bright sepia—not nearly so red as the name "russet" would indicate), substantially uniform; a conspicuous orbital ring of pale buff; sides of head warm buffy, mingled or streaked with olive-brown; chin, throat, and chest buff (or lightening to buffy white toward chin); sides of throat and entire chest with triangular marks of deep olive-brown, smaller and narrower on throat, larger and broader (sector-shaped) posteriorly; breast, especially on sides, transversely spotted with light brown; sides and flanks heavily marked with brownish; remaining underparts white. Bill blackish, paling basally on mandible; feet and legs brown; iris brown. *Winter specimens* are brighter, more deeply tinged with buff before, and with under tail-coverts buffy. *Young birds* are more or less marked and streaked with buffy and tawny above on a rich sepia ground, and the markings of underparts are mostly transverse; underparts, save on middle of belly, heavily tinged with buffy. Length 165.1-190.5 (6.50-7.50); wing 97 (3.83); tail 73 (2.87); bill 13.7 (.54); tarsus 28 (1.10).

Recognition Marks.—Sparrow size; uniform olive-brown above; heavy spotting and buffy wash on chest; sides of head and eye-ring buffy; warm brown above, as compared with *H. u. swainsoni.*

Nesting.—*Nest:* Of twigs, grasses, and macerated vegetation, or else chiefly of moss with inner matrix of dead leaves and leaf-skeletons, laid in wet; no special lining. *Eggs:* 4, rarely 5 (in these latitudes); light bluish green (glaucous green to pale niagara green, or else grayer), spotted rather uniformly but sparingly, sometimes diffusely, with reddish brown (walnut-brown to russet). Av. size (of southern specimens): 22.4 x 16.5 (.88 x .65). *Season:* May–July; one brood.

Range of *Hylocichla ustulata.*—North America; breeding chiefly north of the United States, but also in the mountains and in the Pacific Coast States; wintering from southern Mexico, south to Brazil, Argentina, and Bolivia.

Range of *H. u. ustulata.*—Breeds in the Pacific Coast district from Juneau, Alaska, south to San Diego. Winters from Vera Cruz and Guatemala south to northern South America, from British Guiana to Ecuador.

Distribution in California.—Abundant and of general distribution during migrations. Common summer resident along timbered streams of Upper Sonoran and Transition zones west of the Sierran divide. Breeds south to Poway, in San Diego County. More sparingly distributed on the slopes of the Sierras and in the northern humid coastal belt.

Authorities.—**Heermann** (*Turdus solitarius*), Jour. Acad. Nat. Sci. Phila., ser. 2, ii., 1853, p. 265 (Calif.); *Ridgway,* Proc. Acad. Nat. Sci. Phila., 1869, p. 129 (relationships of *ustulatus* discovered through character of eggs); *Belding,* Proc. Calif. Acad. Sci., ser. 2, ii., 1889, p. 57 (range, migr., song, nesting); *Oberholser,* Auk, vol. xvi., 1899, p. 23 (syst.; orig. desc. *Hylocichla ustulata oedica,* type locality Santa Barbara); *Beal,* U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 86 (food); *J. Mailliard,* Condor, vol. xx., 1918, p. 192 (song).

THE RUSSET-BACKED THRUSH is the happy incarnation of the underforest, the authentic dryad of the Farther West; for wherever shaded waters empty into the blue Pacific, the shifting browns of this bird's upperparts melt and blend with the tints of fallen leaves, dun roots, and the shadows of tree-boles cast on the brown ashes of fallen comrades. Not content, either, with such protective guarantee, this gentle spirit clings to

7048

RUSSET-BACKED THRUSH

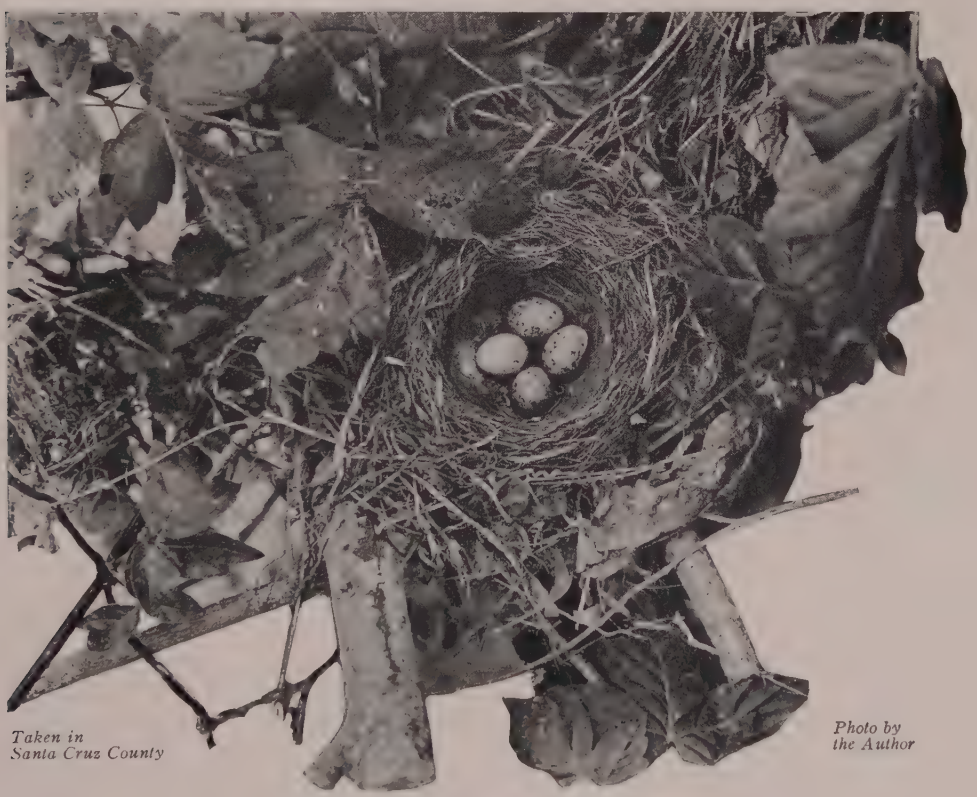
cover, and reveals itself only as a flitting shade and a haunting voice. Now and then a brown gleam does cross some open space in the forest, but the action is hasty and the necessity much regretted.

Those who have not heard or clearly distinguished the incomparable Hermit are likely to give to this bird a high place for its song. There is nothing, perhaps, very remarkable about the song as music, but when it comes from the cool twilight depths of a fir forest, with echoing overtones and subtle whisperings of peace, one must confess its spell. Or when at evening the bird takes a station on the alders, such as overlook some murmuring stream, and lets his voice blend with the waters, or else trail off into suggestive mysteries, or again, speak out with startling distinctness, like an appraising conscience, there is no denying either its sweetness or its power. This song, too, shines by happy absence of comparable merit throughout most of its range; and when we recall that there are twenty Russet-backs sounding in the lowlands to one Hermit on the heights, we need not begrudge to this poet of the people his mede of praise.

There dwelt once in that high-favored city of Berkeley a gentle artist who spent the evening of her life painting sunsets. Her studio was tucked back in a little copse of mingled evergreens and shrubbery, a haven of rest for which the formal front on Piedmont Avenue left one

quite unprepared. Here the Sunset Lady shared bits from her table with her birds, and here she painted her soul into the sunsets, such sunsets as made the breath of the beholder catch,—convincing, uplifting, emancipating sunsets. And here one day the gates of the sunset parted to admit their gentle votary. The bird-man heard and could not come; but months later he came to pay his homage; and lo! from the thicket beside the door came the voice of this thrush, tender, passionate, thrilling, and with such full, rich, organ-tones as he had never heard before. He stood with bared head, and as one entranced, for it seemed as if the soul of the Sunset Lady had found voice again,—a vocal sunset. Surely, not even she could have asked a fitter requiem.

To analyze or revocalize the song of the Russet-backed Thrush is not exactly easy, either; so much depends upon the singer's nearness or remoteness, and so much more upon the resonance of the surrounding



Taken in Santa Cruz County

Photo by the Author

NEST AND EGGS OF RUSSET-BACKED THRUSH IN SITU

woods. I am persuaded that the *weeloo weelo weeloeee* of this bird, heard ecstatically in the overarched twilight, would be inglorious coming from the top of a fence-post in the full glare of day. Nuttall represented the song as "*wit-wit, t'villia-t'villia*"; and a northern observer has left "*Holsey, govendy govindy goveendy*" as his contribution. Where doctors disagree so radically, we may please ourselves. The minor notes are, fortunately, more distinctive, as well as more frequent, and by these we may trace the bird's every movement without recourse to sight. *Quit*, or *hwit*, is a soft whistled note of inquiry and greeting, by which the birds keep in constant touch with each other, and which they are nowise disinclined to use in conversations with strangers. At the friendly call, the Thrush comes sidling over toward you through the brush, until you feel that you could put your hand on it if you would; but the bird remains invisible, and says, *quit, quit*, with some asperity, if you disregard the *convenances*.

A longer call-note, of sharper quality, *queee*, may be as readily imitated, although its meaning in the bush is uncertain. The bird has also a spoken note, a sort of happy purring, which I call the *coordaddy* cry. In this the *daddy* notes are given in from one to six syllables, and are spoken "trippingly on the tongue."

Recalling again the *queee* note, we are surprised to find that it is the commonest sound heard during migrations. At midnight when a solemn hush is over all besides, this weird note comes down from the sky at any height, from every angle, a greeting *en passant* from the voyageurs, the tenderest, the most pathetic, the most mysterious voice of Nature. There are a dozen variations of pitch and tone, *quééé, quee, kooo*, etc., but the theme is one, and the quality is that of the Russet-backed Thrush. Now while it is almost incredible that any one species should so abound to the exclusion of all others, or that one alone should speak while others flit by silently, it is more incredible that there should be a language, or even a call-note, used in common by different species of migrants.[1] We must conclude, therefore, that the Russet-backed Thrushes (and their compeers, the Olive-backs, further East) are a long time passing, and that their aggregate numbers are prodigious.

Much, also, of the apparent difference in the call-notes of these night birds is explained when it is remembered that they are reaching us from different angles. Thus, the *quee* of a rapidly approaching bird is raised sharply and shortened, *quêê;* while the same voice, in passing, falls to a ghostly *kwoo*, at least a musical third below. It is, perhaps, needless to add that practiced lips may join this mystic chorus and hold delightful

[1] The author has himself advanced this theory (see "Birds of Washington," p. 233), but now abandons it as lacking either evidence or probability.

converse with these brothers of the air,—may, indeed, provoke them to trebled utterance in passing.

Russet-backed Thrushes are among the later arrivals of the season. Those which nest in southern latitudes, however, arrive first; and others bound for Alaskan ports are sometimes passing over their heads while the local birds are sitting on their nests. Late May, therefore, is the nesting month for such as remain at the lower levels; but June nests are the rule in Transition areas, and July nests in the upper mountain valleys.

In home building this Thrush makes no effort at nest concealment, trusting rather to the seclusion of its haunts. The materials which enter into the construction of the nest are themselves in a measure protective, especially in those numerous instances in which the exterior is composed entirely of green moss. At other times, twigs, bark-strips, and grasses are used; but the two things which give character to the nest of this Thrush are the mud-cup, or matrix, of mud and leaf-mold, and the lining of dried leaf-skeletons. I have surprised a mother Russet at her task of cup-moulding, and verily her bib was as dirty as that of any child making mud pies. For although the beak serves for hod and trowel, the finishing touches, the actual moulding, must be accomplished by pressure of the bird's breast.

Taken in Oregon
Photo by Bohlman and Finley

MOTHER RUSSET AND HER BROOD

In favored regions the nests of this Thrush are excessively common. A small party of us, working together, found twelve in two hours on the Pajaro River bottom. During a season's nesting in the northern humid belt (of Washington) Mr. D. E. Brown located about a hundred sets of the Russet-backed Thrush, taking no account of nests in other stages of occupation. In distance from the ground, nests varied from six inches to forty feet, although a four or five-foot elevation was about the average.

Nests were found in thickets, where they were supported by the interlacing of branches, or else saddled upon the inclined stems of vine maples, or in fir trees. In the last-named places, nests might be set against the trunk on a horizontal limb, but were more often at some distance from it. The birds were very sensitive about molestation before eggs were laid, and would desert a nest in process of construction on the merest suspicion that a stranger had looked into it. After deposition, however, the mother Thrush was found to be very devoted to her charges, and great confidence was often engendered by carefully considered advances.

As an illustration of the difficulties of identification which beset the earlier ornithologists, we cannot cite a better instance than that offered by Dr. Cooper's outstanding records of the nesting and distribution of this Thrush. Under the head of *Turdus nannus* Audubon, now recognized as our Dwarf Hermit Thrush, *Hylocichla guttata nanus* (Audubon), Cooper describes[1] the nesting of our Russet-backed Thrush as he knew it at Santa Cruz, the eggs being "pale bluish green speckled with cinnamon brown, chiefly at the larger end." Under *Turdus ustulatus* Nuttall, known as "The Oregon Thrush," the Doctor says:[2] "This more northern species is the exact counterpart of *T. nanus* in habits. I found their nests north of the Columbia, about the middle of June, 1854, containing four or five bluish white eggs, thickly speckled with brown." Of *Turdus swainsoni* Cabanis (i.e., our Olive-backed Thrush) he says:[3] "The eggs are blue, with numerous reddish spots, and nests and eggs indeed are scarcely to be distinguished from those of *T. ustulatus*"! Yet in 1860 he had elsewhere recorded[4] of *Turdus ustulatus* Nuttall, "The eggs, unlike those of most thrushes, are white, spotted thickly with brown, and four or five in number." Possibly the good doctor had encountered a freak set; but if so, it must remain the envy of all oölogists.

No. 149a Olive-backed Thrush

A. O. U. No. 758a. **Hylocichla ustulata swainsoni** (Tschudi).

Synonyms.—Swainson's Thrush. Eastern Olive-back. Alma's Thrush (*H. u. almæ* Oberholser, disallowed by A. O. U. Committee).

Description.—*Adults:* Similar to *H. ustulata*, but grayer and more olivaceous; "color of upperparts varying from olive to grayish hair-brown in summer, from deep olive to slightly brownish olive in winter"; ground-color of underparts lighter buffy (yellowish buff or creamy buff); sides and flanks grayish instead of brownish olive. *Young birds* are decidedly darker, more blackish, above, with paler, less ochraceous, streaks; underparts with less extensive but more blackish markings; also much more

[1] Geological Survey of California, Ornithology, Vol. I., Land Birds, edited by S. T. Baird from the MS. and notes of J. G. Cooper, 1870, p. 5.
[2] Ibid., p. 6.
[3] Op. cit., p. 7.
[4] Rep. Proc. R. R. Surv., Vol. XII., Book II., 1860, p. 171.

extensively white, with lighter, more creamy-buffy, wash on breast and sides. Size of last, save for wing, which averages mm 3 longer.

Recognition Marks.—As in preceding; grayer above, lighter buffy below.

Nesting.— *Nest* and *Eggs* indistinguishable from those of typical form, *H. u. ustulata.*

Range of *H. u. swainsoni.*—North and South America. Widely distributed during migrations save along Pacific coastal strip. Breeds chiefly north of the United States nearly to the limit of trees, from northwestern Alaska to Newfoundland; south in the mountains of the West to east-central California and Colorado; and in the East to Pennsylvania and West Virginia. Winters from southern Mexico through South America to Argentina.

Distribution in California.—Sparingly resident in summer in the mountains of the northeastern plateau section, and along the east slopes of the Sierra Nevada, at least to Mono Lake (June 6, 1919) and Mammoth Camp (June 11–July 5, 1919).

Authorities.—Belding (*Turdus ustulatus swainsonii*), Proc. Calif. Acad. Sci., ser. 2, ii., 1889, p. 60 (biog., song, etc.); *Fisher*, N. Am. Fauna, no. 7, 1893, p. 145 (Panamint Mts.); *Grinnell*, Pac. Coast Avifauna, no. 11, 1915, p. 170 (status in Calif.); *Swarth*, Univ. Calif. Pub. Zool., vol. xxiv., 1922, p. 301 (life hist., desc. nest and eggs, etc.; n. British Columbia).

THE MORE OPEN WOODS and more abundant suns of the interior districts effect that reduction of color in the "burnt" Thrush, which henceforth characterizes the species clear through to the Atlantic. It would be idle to trace in detail all accompanying changes of manner and habit, but we can hardly fail to note the improved quality of the Olive-back's song. This is most nearly comparable to that of the Wilson Thrush, and has something of the same rolling, vibrant quality. It is, however, less prolonged and less vehement. It may or may not retain the liquid l's, but it discards outright the rich r's which the Veery rolls under his tongue like sweet morsels; and the pitch of the whole rises slightly, perhaps a musical third, as the volume of sound diminishes toward the end: *We-e-o, we-e-o, we-o, we-o, weee.*

The Olive-backed Thrush was recorded first by the M. V. Z. party of 1911, from the Warner Mountains, where I, also, found them breeding in the summer of 1912. Whether or not this race overlaps *ustulata* in its distribution further west, has not been determined, but even if it did so, it would probably be found that the two forms are maintaining their distinctness, as they are known to do elsewhere. Indeed, it is not even certain that *ustulata* and *swainsoni*, although resembling each other so closely, do really occupy a conspecific relation. Perhaps the two groups were separated, and so differentiated, during the Ice Age, and have not reunited within the brief time since elapsed.

No. 150

Robin

[No. 150 Eastern Robin

A. O. U. No. 716. **Planesticus migratorius migratorius** (Linnæus).

Synonyms.—American Robin. Migrating Thrush.

Description.—*Adult male in spring and summer:* Head black, interrupted by white of chin and white with black streaks (or nearly confluent black stripes) of throat; eyelids and a supraloral spot white; tail blackish, the outermost pair of rectrices broadly tipped with white (more broadly on inner web), the succeeding pair narrowly white-tipped; flight-feathers dusky, the edges of outer webs ashy; remaining upperparts grayish slate, sometimes lightly glossed with olivaceous; below,—breast, sides, upper belly, and lining of wings, cinnamon rufous (rich tawny to—in extreme cases—Sanford's brown), the feathers of belly white-skirted in early spring; lower belly and crissum white, touched irregularly with slate. Bill yellow with blackish tip; feet black with yellow soles. *Adult female in spring and summer:* Similar to male, but dull; the black of head, especially, veiled by brownish. *Adults in winter:* Upperparts tinged with brown; the rufous feathers, especially on belly, with white skirtings. *Immature in first fall plumage:* Much like adult, but pileum olive-brown (of the same shade as back), finely streaked with black; throat white, more finely and sparingly streaked with blackish; white of belly and skirtings more extensive; the rufous of breast and sides clouded with pale slaty. *Nestlings* are streaked above, especially on back, with pale buffy, and spotted with terminal black; below, throat and belly immaculate white; crissum chiefly dusky with mesial white streaks, the breast and sides more or less washed with pale tawny or ochraceous buff, and heavily spotted with black, the spots tending to fall into bars on the sides. Length of males about 254 (10.00); wing 129 (5.08); tail 95.3 (3.75); bill 19.8 (.78).

Recognition Marks.—"Robin" size; cinnamon-rufous breast; the "corners" of the tail conspicuously white-tipped, as distinguished from *P. m. propinquus.*

Nesting.—Does not breed in California. *Nest* and *Eggs* as in *P. m. propinquus*, save that eggs number 4 or 5, sometimes 6.

Range of *Planesticus migratorius.*—North America, breeding from Cape San Lucas, the Mexican plateau, and the northern portion of the Gulf States north to the limit of trees.

Range of *P. m. migratorius.*—Eastern and northern North America westward nearly to the Rocky Mountains and northwestward to valley of Kowak River, in Alaska; breeds from the southern Alleghenies, Pennsylvania, Ohio, Iowa, etc., northward; winters in Gulf States; south irregularly across the Western States during migration.

Supposed Occurrence in California.—Believed to be casual during migrations—imperfectly made out.

Remark.—The situation regarding the Robin in the West is evidently more complicated than we used to suppose. The common stock, *P. migratorius*, was originally, as in so many cases, divided in its northward advance by the tongue of the Cordilleras, the western element losing in its progress the white corners of the tail, and suffering to some extent a bleaching of the rufous. This latter tendency was disguised from our eyes by the frequent occurrence in winter of dark-breasted birds; but the

recognition of *P. m. caurinus*, a resaturated form from Vancouver Island and broadly contiguous mainland territory, has made us aware that resident birds of the Southwest are really lighter-breasted.

Moreover, the presence of white in the tail of certain western birds is scarcely the casual factor we had thought. Variable this character undoubtedly is, but its decided presence is never found in southwestern breeding birds. The case seems, rather, to be analogous to that of the *Dendroica auduboni-coronata* group: The more aggressive eastern form passing in a northwesterly direction (along the line of the retreating ice-sheet?), has long since outstripped its western rival in the race to northwestern Alaska. Now instead of following the ancestral line of autumnal retreat through Saskatchewan and Manitoba, *P. m. migratorius*, like *D. c. coronata*, has begun to cut "cross-lots," and even to go straight south (like *D. c. hooveri*) in search of a winter home. At any rate, I so construe the presence in winter of certain of our white-tailed dark-breasted birds which are found in Californian collections.]

Addendum.—At the earnest representation of Mr. H. S. Swarth, and since there is not time to review the evidence upon the eve of going to press, I am bracketing the treatment of the Eastern Robin. Mr. Swarth holds that all "white-cornered" birds in California are to be accounted for by individual variation in *P. m. propinquus*. He may be right, and I am willing that the foregoing treatment should be regarded as an expanded "hypothetical" out of place; but I am quite confident that Mr. Bowles and I have encountered flocks of pure *P. m. migratorius* stock, during the migrations, in western Washington. They may have cut in at a point further north, but the theory of a Californian flight line deserves consideration.

No. 150a Western Robin

A. O. U. No. 761a. **Planesticus migratorius propinquus** (Ridgway).

Description.—Similar to *P. migratorius*, but white on inner web of outer rectrices much reduced, or wanting; gray of upperparts grayer and more olivaceous, more sharply contrasting with black of head; cinnamon-rufous of underparts averaging paler; wing, tail, and tarsus slightly longer. *In winter* upperparts more distinctly tinged with olivaceous. Length of males about 260.3 (10.25); wing 140 (5.52); tail 105 (4.13); bill 20.3 (.80); tarsus 34.1 (1.34). Females slightly smaller.

Recognition Marks.—"Robin" size; cinnamon-rufous below—everyone knows the Robin—without white on "corners" of tail, as distinguished from *P. m. migratorius*.

Nesting.—*Nest:* A thick-walled but shapely bowl of mud (rarely, felted vegetable fibers instead), set about with twigs, leaves, string, and trash, and lined with fine grass-stems; placed anywhere in trees, or variously, but usually at moderate heights. *Eggs:* 3 or 4, rarely 5; bluish green (niagara green to light niagara green), unmarked. Av. of 21 eggs from Eureka 27.9 x 20.6 (1.10 x .81); index 73. *Season:* April 15–July 10; two broods.

Range of *P. m. propinquus*.—Western United States, Mexico, and southern British Columbia (interiorly). Breeds from southern British Columbia and central Montana south to southern California, Jalisco, Oaxaca, and Vera Cruz, and from the western borders of the Great Plains west to the Pacific, save in the extreme northwest humid coastal district. Winters irregularly in regions of milder temperatures, practically throughout its range, and south to highlands of Guatemala.

Distribution in California.—Probably largely resident *within* the State: in summer at the upper levels; in winter irregularly but abundantly at the lower levels. Breeds in Boreal and Transition zones throughout the Sierras, and at lower levels

contiguous to them, especially along their eastern base, even down to recognized Lower Sonoran areas (as at Lone Pine, Inyo County, June 16 and 19, 1911; George Creek, Inyo County, May 19, 1919). Also in the Sierra Madre and San Bernardino Mountains, Mt. Pinos, the Warner Mountains, the Trinity Mountains, and throughout the northwestern humid coastal strip, south (at least) to San Geronimo in Marin County. Birds destined to nest at the higher mountain levels often linger through April, or even May, at the lower levels, and so establish a false presumption of breeding (e. g., Sacramento, May 30, 1912). In winter irregularly abundant at lower levels, even upon the deserts,—range at this season evidently being determined by supply of berries or edible fruits. Casual (?) on the Channel Islands.

Authorities.—**Vigors** (*Turdus migratorius*), Zool. Beechey's Voy., 1839, p. 17 (Monterey); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 93 (food); *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 132 (San Bernardino Mts.; nest and eggs, habits, etc.); *H. E. Hansen*, Condor, vol. xviii., 1916, p. 170, fig. (nesting in Golden Gate Park, San Francisco); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 101 (occurrence on s. Calif. islands).

No. 150b Northwest Robin

A. O. U. No. 761a, part. **Planesticus migratorius caurinus** Grinnell.

Description.—Similar to *P. m. migratorius*, but with white on tips of outer rectrices reduced or wanting (when present, often pale slaty); the rufous of underparts (in males) less variable and averaging darker (Sanford's brown or amber-brown). *Young birds* especially averaging darker, both as to extent of black in upperparts and the strength of cinnamon-rufous of underparts (nearest mars yellow or raw sienna, but a little grayer and darker); the throat usually tinged with ochraceous. Likewise, similar to *P. m. propinquus*, but richer and darker and averaging a little smaller.

Remark.—The inclusion of this form as a bird of California is largely presumptive, and is based on the fact that many winter birds and early spring migrants are much darker-breasted than are the breeding birds of our own mountains. Specifically, a specimen, a male #19709 of the Mus. Vert. Zool. series, taken by Dr. Grinnell at Tracy, March 9, 1911, is as dark as any specimen from Vancouver Island. On the other hand, Robins are known to winter irregularly north to British Columbia, and only successful banding can establish the fact of their California range beyond a doubt.

Presumptive Range.—The Pacific Northwest, breeding in the Sitka district of Alaska, south at least to Vancouver Island and northwestern Washington. Winters from southern British Columbia south irregularly (?) to California.

"*JIP, jip—Dzip, dzip—Drick, jick—dink, dink.*" However that earnestly protesting note of the Robin may vocalize itself to your ears, you know what I mean. And you know, within one, of what *it* means—either a cat skulking under the lilac bush, or else a small boy toiling painfully up the stem of an apple tree to see what that mud cup has got in it. Dear, familiar sound, homely expletive, none the less sweet because it is meant to be upbraiding. Dear because familiar, and because its shrill staccato calls up the vernal scenes of childhood. We will hasten to the rescue, of course, but we will chuckle as we go. "S-cat, Pussy; don't you know better than to scare our Robins? If you didn't belong

Taken in Fresno County *Photo by the Author*

A BREEDING HAUNT IN THE SIERRAS

to my good neighbor X—, I suppose I'd have to shoot you." Or, "Well, young man, wha' d'yuh think y're doin' there? 'Robins' aiggs,' hey? Well, don't you know better'n to scare the poor birdies like that? Come down out o' there this minute. The idea!" (Chorus of inner protests at the rank injustice of this method of dealing with childish curiosity, and much mental panorama of oval objects done in "Robin's egg blue"—say about a thousand of them. Ha, this ineluctable oölogical propensity —common to men and monkeys! It is to laugh!)

"Everybody knows Robin. He is part and parcel of springtime, chief herald, chief poet, and lord high reveler of that joyful season. It is a merry day when the first flock of Robins turns itself loose on the home landscape. There is great bustle and stir of activity. Some scurry about to note the changes wrought by winter, some wrestle with the early and unsophisticated worm, while others voice their gladness from the fence-post, the gable, the tree-top, anywhere. Everywhere are heard interjections of delight, squeechings and pipings of ardent souls, and no end of congratulations over the home-coming.

Taken in Oregon *Photo by W. L. Finley*

BACK FROM MARKET

"Robin has cast in his lot with ours, for better or for worse. Our lawns are his lawns, our shade trees were set on purpose to hold his homely mud-cup, and he has undertaken with hearty good will the musical instruction of our children. He serves without pay—Oh, a cherry now and then, but what of that? The fruit-grower never had a more useful hired man; and it is written: 'Thou shalt not muzzle the ox that treadeth out the corn.' I wonder if we realize how much of life's good cheer and fond enspiriting we owe to this familiar bird." (The Birds of Washington.)

All of which foregoing is only partially true of California. We have brought with us, most of us, our eastern prejudices and associations, just as our forebears did theirs from Merry England, and we cling to prepossessions, half unwittingly, in much the same fashion. The original Robin Redbreast (*Erithacus rubecula*) is a much smaller bird (albeit still a Thrush), but the colonists hailed the first gleam of friendly "red" which shone from the breast of this new world thrush, and transferred their affections promptly to the new-found "Robin." And Robin has lived up to expectations well enough to deserve still further indulgence in California, where he is both less well-known and less well-behaved. For save in favored sections of the Sierran uplands, the northeastern plateau region, and the humid coast belt south to, and lately including, San Francisco, the Robin is not the familiar of childhood nor the poet of common day. For the most part the bird nests in our cooler mountain climate in "Transition" or "Canadian" faunal zones, even up to the limit of trees, so that it is only as an irregular winter visitant—shy, silent, fugitive, but often excessively numerous—that urban California knows the Robin. Only the stout-hearted Sierran, the prospector, or the semi-professional camper-out knows the Western Robin as he deserves to be known.

Dr. Grinnell gives the picture of Robin in the Yosemite Valley:[1] "Robins hop familiarly along the paths between the rows of tents, or dash in heedless flight close past the many people. Often a robin will

[1] Sierra Club Bulletin, Vol. 8, June, 1911, pp. 118-124.

permit an approach as close as ten feet, especially when foraging on the greensward of the meadows among the tethered ponies. At times during the day we hear bursts of robin melody. But at early morning and late evening the robin chorus pervades far and wide what would otherwise be a nearly perfect stillness. The trite word 'carol' to my mind and ear describes the robin's song satisfactorily; and several robins caroling at once furnish a type of bird music unapproached in pleasing quality by any other species I have ever heard."

The robin's song in its common form is too well known to most of us to require particular description, and too truly music to lend itself well to syllabic imitation. There is something homey and substantial about it which makes us give thanks for common things, and accept without analysis—as we do salt and sunshine and breath of orange blossoms.

Robin conceives many passages which are too high for him, and these he hums inaudibly, or follows in silent thought, like a tenor with a cold. When the theme reaches his compass again, he resumes, not where he left off but at the end of the unheard passage. It must be confessed, however reluctantly, that the song of the Western Robin is a little more subdued in character than that of the Eastern. The bird is a little less devoted to his art, and the total volume of sound yielded by any one chorus has never equalled, in my experience, that of a similar effort in the East.

Taken in Idaho *Photo by H. J. Rust*

NEST AND EGGS OF WESTERN ROBIN

When the Robin is much given to half-whispered notes and strains unusually tender, one may suspect the near presence of his fiancée. If you are willing to waive the proprieties for a few moments you will hear low murmurs of affection and soft blandishments, which it would tax the art of a Crockett to reproduce. And again, nothing can exceed the sadness of a Robin's lament over a lost mate. All the virtues of the deceased are set forth in a coronach of surpassing woe, and the widower declares himself forever comfortless. It is not well, of course, to inquire too particularly as to the duration of this bereaved state—we are all human.

Taken in Idaho *Photo by Rust*

A PROMISING LAD

The Robin is an ardent lover, no doubt of that; and by the same token he is willing to back up his claims against all comers. Before Robins have become common about the streets and yards of a mountain village, partners have usually been selected; but there still remains for many of the cocks hard-contested battles before peaceful possession is assured. These are not sham fights either; a Robin will fight a hated rival beak and claw, till he is either thoroughly winded or killed outright.

And he is no less brave as the head of a family or as an upright neighbor. No other protestations, as of invaded nesting rights, have quite the moral earnestness of Robin's. (I should hate to gather Robins' eggs for a living!)

Once, at Goose Lake, while the bird-man was perched aloft, with cameras, awaiting the return of a reluctant Vireo, a terrific commotion broke out in a big thorn bush. I looked to see a tumbling mass of birds, but could distinguish nothing until the contestants hit the ground and fell apart for a tense moment, whereupon I made out a Sierra Junco, a Sparrow Hawk, and two Robins. The Junco stirred first; the Sparrow Hawk took after him; but the Robins joined pursuit with such instant vigor that the Junco was able to drop out unnoticed. The Robins chased that Sparrow Hawk, like avenging furies, for at least a hundred yards, and I'll wager the would-be assassin was glad to get away. Your Robin Redbreast has one of the bravest hearts that beats.

Taken in Michigan *From a Photograph, Copyright 1908, by L. G. Linkletter*

THE ROBIN'S NEST

At nesting time the Robin displays little caution, its homely mud-walled cup not being withdrawn from the most familiar observation. Indeed, as in the case of the accompanying illustration (of an Eastern Robin), the bird appears to court notoriety. From five to fifteen feet is the usual elevation, but nests are sometimes found in a pine or fir tree up to sixty feet. When civilization has been frankly adopted —and the tendency to "come out of the woods" is very marked, as the records of recent

nesting in Golden Gate Park bear witness—window sills and beams of porches, barns and outbuildings are favorite places; and in default of these, brush-piles or log-heaps will do.

The mud used in construction is, of course, carried in the beak. Arrived at the nest with a beakful of mud, the mother bird drops her load, or plasters it loosely on the inside of the cup. Then she hops into the nest, settles as low as possible, and begins to kick or trample vigorously with her feet. From time to time she tests the smoothness or roundness of the job by settling to it with her breast, but the shaping is altogether accomplished by the peculiar tedder action of her feet.

Western Robins do not usually nest twice, although they may venture to do so where their relations to man are thoroughly dependable. Three eggs is the rule for the Western Robin; four is unusual, save in the Humboldt region, and there is only one published record of five in California. In this respect, therefore, the Western Robin falls decidedly behind her eastern cousin.

Young Robins are darling creatures; that is conceded by everyone,—even by the cat. And hungry! Oh, so hungry! It is estimated that if the appetite of a man was proportioned to that of a young Robin, he would consume daily the equivalent of a sausage four inches in diameter and twelve feet long!

The Robin's appetite is, unfortunately, more than a matter of passing interest to his friends. So long as it can be directed towards insects, or towards the wild fruits which form so large a portion of its normal bill-of-fare, we do not complain. The madrona tree (*Arbutus menziesii*) often fruits in such abundance that hordes of Robins can thrive upon it throughout the winter. Christmas berries (*Heteromeles arbutifolia*) are another staple of winter fare, while haws, service berries, cascara berries, and all available representatives of the genera *Rhus*, *Prunus*, *Cornus*, *Pyrus*, *Celtis*, *Juniperus*, and a dozen others, furnish their quota. But when all these sources of supply fail, the Robins, to the number sometimes of tens of thousands, invade the orchards of ripening olives, and there they make sad havoc. A Robin can take care of five or six ripe olives at a time, and a regiment of them can strip an orchard faster than a crew of men, although the birds really prefer to pick up the fallen fruit off the ground. In such circumstances, there really seems nothing for it but to shoot the birds—under governmental permission. Olives are olives, and we cannot alter their midwinter season of maturity to suit Sir Robin's convenience. With other winter fruits it is a little different. A neighbor of mine, who raises February raspberries at fifty cents a thimbleful, complains bitterly of their attractiveness to the Robins; but I tell him that if he insists on raising such unseasonable luxuries, he can afford chicken

wire at eight cents a foot to cover them.

Fruits which ripen in summer suffer to some extent from Robin's depredations, but his appetite for cherries, even, is by no means insatiable; and the best protection for any orchard is an outside row of thrifty mulberry trees.

And of course Robins eat bugs, oodles of them, besides thousand-legs, sow-bugs, snails, and angle worms. One governmental expert, with monumental patience, has identified 194 species of beetles found in Robins' stomachs. The birds had even swallowed *Platynus brunneomarginatus, Sphœridium scarabœoides, Œdionychis interjectionis, Cercopeus chrysorrhœus* and *Conotrachelus anaglypticus,* without apparent injury to their inner works. By this same authority, Dr. Beal, the Robin was credited with only one species of fly, *Bibio alpennis,* whose larvæ were gleaned from the ground. I wonder, then, what the birds could have been feeding on at Vidette Meadow in the central Sierras (alt. 9,700 feet), where I saw them hawking out from the tree-tops like Flycatchers. One Robin sailed out from a full hundred feet, snatched a shimmering something midair with a graceful fillip, then recovered and alighted upon the nearest convenient tree. "Fish-worms" and fallen

Taken in Idaho *Photo by Rust*

"YOUNG ROBINS ARE DARLING CREATURES"

olives at sea-level; lace-winged flies and scarabs on ice at timberline—there's an epicure for you!

No. 151

Varied Thrush

A. O. U. No. 763. **Ixoreus nævius nævius** (Gmelin).

Synonyms.—Mountain Robin. Winter Robin. Oregon Robin. Columbian Robin. Varied Robin. Painted Robin.

Description.—*Adult male:* Above dark slate-color (plumbeous slate to blackish slate), sometimes, especially in winter, tinged with olivaceous; wings dusky, edged more or less with slaty, the flight-feathers varied sharply by ochraceous-buff, the middle and greater coverts tipped broadly with tawny or ochraceous, forming two conspicuous bars; tail blackish, the outermost of several lateral rectrices tipped with white on inner web; a conspicuous lateral head-stripe, originating above eye and passing backward to nape, ochraceous or ochraceous-buff; area on sides of head, including lores, suborbital space, and auriculars, black or slaty black, connected narrowly on side of neck with a conspicuous pectoral collar of the same shade; chin, throat, and remaining underparts tawny-ochraceous (raw sienna to deep mars yellow), paling on sides and flanks, where feathers broadly margined with slaty-gray, changing to white on abdomen; under tail-coverts mingled white, slaty, and ochraceous; axillars and under wing-coverts white basally, broadly tipped with slaty gray, and under surface of flight-feathers crossed basally by band of white or buffish. Bill brownish black, paling basally on mandible; feet and legs ochre-brown; irides brown. *Adult female:* Similar to adult male, but paler and duller; upperparts olive-slaty to olive-brownish; tawny of underparts much paler and pectoral collar narrower—of the shade of back or a little darker; more extensively white on abdomen. *Young birds:* Like adult female, but browner, washed with warm sepia above; more yellowish ochraceous below; pectoral band broader and less distinctly defined, composed of ochraceous feathers having darker edges; other feathers of throat and breast more or less tipped with olive dusky. Length of adult 241-254 (9.50-10.00); wing 125 (4.92); tail 87 (3.43); bill 21 (.83); tarsus 22 (.87).

Recognition Marks.—Robin size; blackish band across chest distinctive; wings conspicuously varied by tawny markings; head pattern distinctive—otherwise very Robin-like in bearing and deportment.

Nesting.—*Nest:* Of sticks, twigs, grasses, and rotten wood, smothered in moss; a bulky handsome structure, placed in saplings or trees at moderate heights, without attempt at concealment. *Eggs:* usually 3, rarely 4; pale to light niagara green, sparingly speckled or spotted, rarely blotched, with chocolate and its dilutions. Av. size 29.5 x 21.1 (1.16 x .83). *Season:* April 20–May 10, June 10–July 1; two broods.

Range of *Ixoreus nævius.*—Western North America.

Range of *I. n. nævius.*—The Pacific coastal district; breeding from Yakutat Bay, Alaska, south to Humboldt County, California; wintering from southern Alaska to

Monterey County, California, and casually to Guadalupe Island; accidental in eastern localities, even to New England.

Distribution in California.—Breeds sparingly in Humboldt, Del Norte, and western Trinity (10 miles west of Peanut, July 3, 1916) Counties; winters commonly south to Monterey County, less commonly to Santa Barbara, and casually further south.

Authorities.—Vigors (*Turdus nævius*), Zool. Voy. "Blossom," 1839, p. 17; *McAtee*, U. S. Dept. Agric., Yearbook, 1906, p. 197 (food); *Grinnell*, Condor, vol. xvi., 1914, p. 40 (Berkeley; dates of arrival and departure); *J. Mailliard*, Condor, vol. x., 1908, p. 118 (migr. "wave"); *ibid.*, vol. xviii., 1916, p. 200 (Eureka; nesting).

No. 151a Northern Varied Thrush

A. O. U. No. 763a. **Ixoreus nævius meruloides** (Swâinson).

Description.—Similar to *I. n. nævius* but slightly paler, the female, especially, paler and grayer with white markings more extended, wings longer and more pointed.

Range of *I. n. meruloides.*—Western North America, except the humid coastal strip. Breeds from the Yukon Delta, the Kowak Valley and the Mackenzie Delta south through eastern British Columbia to northwestern Montana and northeastern Oregon (A. O. U. Com.). Winters chiefly in the interior of California and the San Diegan district.

Distribution in California.—Common but locally irregular winter resident, chiefly in the interior and southern sections, west of the main divide. Occurs as far south as Witch Creek, San Diego County (Willett) and San Clemente Island (Linton). Also Santa Cruz Island (Apr. 5, 1915; March 18-30, 1916).

Authorities.—Grinnell, Auk, vol. xviii., 1901, p. 143 (revived name; desc.; winters in s. Calif.); *ibid.*, Pac. Coast Avifauna, no. 1, 1900, p. 62 (habits, nest and eggs, song, etc.; n. Alaska); *ibid.*, no. 11, 1915, p. 172 (status in Calif.); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 101 (s. Calif. islands).

TO HAVE EARNED the right to speak appraisingly of the Varied Thrush as a bird of California, one must have lingered in some deep ravine of Humboldt County, where spruce trees and alders and crowding ferns contend for a footing, and where a dank mist drenches the whole with a fructifying moisture. Here and here only, in California, is the Varied Thrush at home, but his domain extends northward to the limit of trees in northwestern Alaska. For the Varied Thrush loves rain as a fish loves water; while as for the eternal drizzle, it is his native element and vital air. Sunshine he bears in stoical silence or else escapes to the depths of the forest glade. But let the sun once veil his splendors, let the clouds shed their gentle tears of self-pity, let the benison of the raindrops filter through the forest, and let the leafage begin to utter that myriad soft sigh which is dearer than silence, and our poet Thrush wakes up. He mounts the chancel of some fir tree and utters at intervals a single long-drawn note of brooding melancholy and exalted beauty,—

a voice stranger than the sound of any instrument, a waif echo stranding on the shores of time.

There is no sound of the northwestern woods more subtle, more mysterious, more thrilling withal, than this passion song of the Varied Thrush. Somber depths, dripping foliage, and the distant gurgling of dark brown waters are its fitting accompaniments; but it serves, somehow, to call up before the mind's eye the unscaled heights and the untried deeps of experience. It is suggestive, elusive, and whimsically baffling. Never colorless, it is also never personal, and its weird extra-mundane quality reminds one of antique china reds, or recalls the subdued luridness of certain ancient frescoes. Moreover, this bird can fling his voice at you as well from the tree-top as from the ground, now right, now left, the while he sits motionless upon a branch not fifteen feet above you.

Taken in Humboldt County
Photo by Pillsbury

IN THE REDWOOD FOREST: A HAUNT OF THE VARIED THRUSH

Fantastic and varied as is this single note, which is the Thrush's song, it may be fairly reproduced by a high-pitched whistle combined with a vocal undertone. At least, this imitation satisfies the bird, and it is possible to engage one after another of them in a sort of vocal contest in which curiosity and jealousy play unquestioned parts. Sometimes the Thrush's note is quite out of reach, but as often it descends to low pitches; while now and then it is flatted, and the resonance crowded out of it, with an indescribable effect upon the listener, somewhere between admiration and disgust. At other times a trill is introduced, which can be taken care of by a trained palate, in addition to the vocal sound and the whistle.

This weird strain is, of course, not entirely forgotten in the winter season, when the birds deploy through the Southland in immense if inconspicuous numbers; but its stealthy repetition finds one incredulous, this muted blast of Hesperocichla's[1] horn, when it comes from the frivolous mazes of a pep-

[1] Formerly so called.

per tree or a sterile eucalyptus, instead of the darkling depths of an authentic fir.

The Varied Thrush is known by a variety of names, none more persistent or fitting than that of "Winter Robin." It is a Robin in size, prevailing color, and general make-up; and it appears in the lowlands in large numbers only in the winter time, when the deep snows have driven it out of the hills. The Thrush is much more shy than the Robin, and although it moves about in straggling companies, and does not shun city parks, it keeps more to cover. It also feeds largely upon the ground, and when startled by a passer-by it flutters up sharply into the trees with a wing-sound whose quality may soon be recognized as distinctive. At such times the bird makes off through the branches with a low chuck, or *tsook*, or else tries the air by low notes which are like the song, only very much more subdued. This is manifestly an attempt to keep in touch with companions, while at the same time attracting as little hostile attention as possible. This note is, therefore, barely audible, and has very little musical quality, *aarue*, or *üür*.

Of course the bulk of our winter population is furnished by Alaskan migrants, for the few who summer in the northwestern counties would scarcely be noticed in the myriad canyons of southern California; and the occupation of the Southland is so complete that a few spill over upon the Channel Islands. For the most part the October migrations occur silently and unnoticed; but Mr. Mailliard records, from Marin County, an instance[1] in which returning migrants—to the aggregate of tens of thousands, a regular bird wave, were seen. Upon arrival in the State these Thrushes fall at once upon the dropped acorns, and Beal found that mast constituted 76% of the bird's food in November. This fondness for acorns is quite an unusual trait in the Thrush family and deserves further study. One instance[2] is on record where a bird lost its life because of a stout acorn shell which became so firmly wedged over its upper mandible that it could not be pried off. Like pussy with her head in the cream-pitcher, the poor bird had dashed its brains out in a frantic effort to escape.

Another Thrush, more resourceful in the presence of danger, did effect a sensational escape. My father, the late Rev. William Edwy Dawson, tells the story: "The other day I surprised a Varied Thrush in the chicken yard. In great alarm the bird flew round and round the chicken-wire enclosure looking for an exit. Finding none, and forgetting in its haste the partly uncovered space overhead where it must have entered, the bird took the width of the yard for a running or rather flying start, and darted straight for an aperture on the other side. These holes are

[1] "Condor," Vol. X., p. 118.
[2] "Condor," Vol. X., p. 91.

not more than two inches across the principal part, but measuring horizontally from sharp angle to sharp angle a little more. He went through that wire without perceptible loss of velocity, and though you could hear a slight rubbing sound, indicating that he had found the wire a close fit, nothing like a blow. The bird must have had its wings close-folded at the instant of passage. Even so, I do not think it could have passed without complete contact on every side. One can see how such an engineer could thread the thickets at full speed."

The Varied Thrush is chiefly a ground-feeder and nothing edible that is likely to strew the ground comes amiss. It is on this account that the birds venture out from hedges and coppices to take sly nips at the festive angleworms. Never shall I forget how, while seated by the window in one of the most luxurious homes of Montecito, I saw a Varied Thrush not twenty feet away, hopping across the perfect lawn in search of a vulgar worm. The audacity! and, like the Robin, the Varied Thrush gratefully accepts the largess of fallen olives. Indeed, it is to be suspected that the wily Thrush gets about two olives to Robin's one, for, mind you, he is "devilish cute." Or, where olives fail to tempt, or birds resist, the Christmas berry yields its yuletide cheer, and the unfailing pepper berry (*Schinus molle*) gives a palatable consolation.

To find the bird at nesting time we must repair again to the humid forests—no matter where. My own experience has been chiefly confined to Washington.

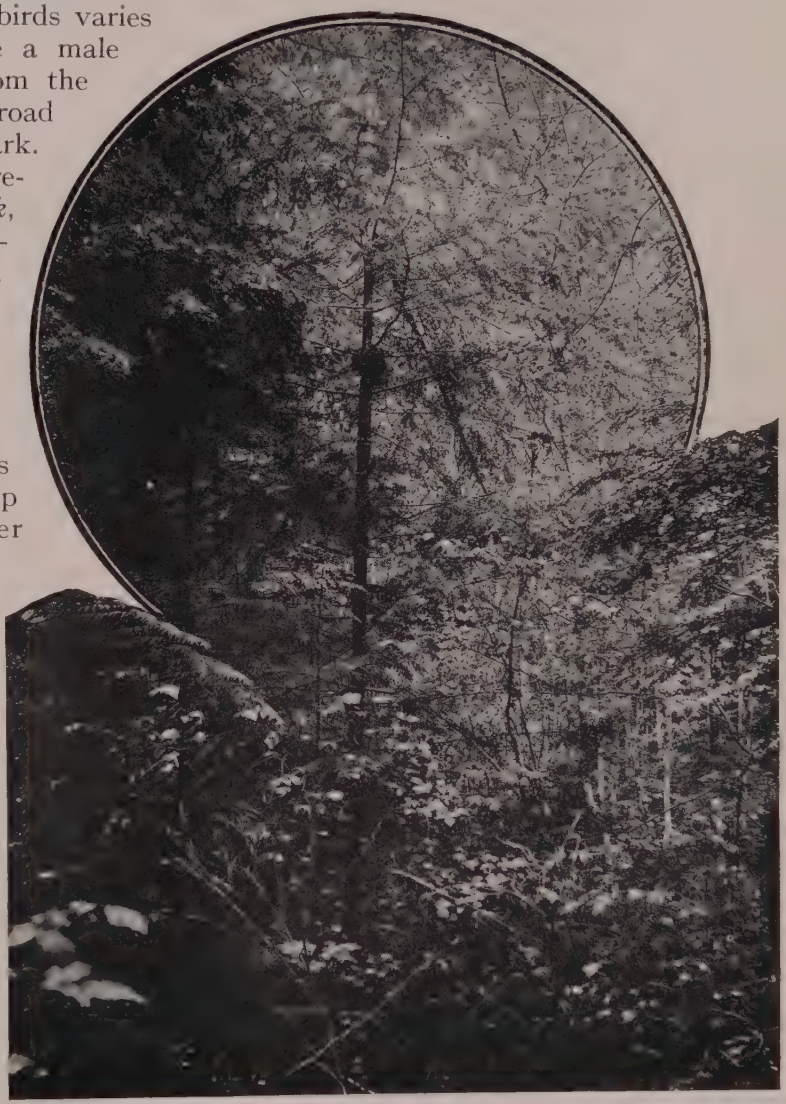
Here are the woods that abound in moss-bunches,—great balls of thrifty green which grow, without apparent excuse, alike from the flimsiest and from the most substantial supports. It is in view of the abundance of these, that the Varied Thrush builds as it does, right out in the open of the underwood, near the top, or at least well up, in a small fir tree. The searcher has only the advantage of knowing that in order to secure adequate support the bird must build close up to the stem of the tree. An occasional exception to this rule is when branches intersect and so offer additional strength. Owing to the fact that the large timber affords considerable protection to the younger growth below, and because of the superior construction of the nests, they prove very durable. Old nests are common; and groups of half a dozen in the space of a single acre are evidently the consecutive product of a single pair of birds.

There is a notable division of territory among these Thrushes. As a rule, they maintain a distance of half a mile or so from any other nesting pair. In two instances, however, one observer found nests within three hundred yards of neighbors.

When one approaches the center of a nesting reserve, the brooding

female slips quietly from the nest and joins her mate in denouncing the intruder. The birds flit restlessly from branch to branch, or from log to log, uttering repeatedly a stern *tsook*, which is almost their sole recourse. If the nest is discovered and examined, the birds will disappear silently; and the chances are that they will never again be seen in that locality. But the degree of interest evinced by the nesting birds varies interminably. Once a male Thrush was startled from the side of the government road in Rainier National Park. Upon an approach he removed with a low *chuck*, and flew down the highway to a distant point. Now and then he made sallies into the timber, and we saw before long that he was accumulating a billful of comestibles. But as often as we lost him, he bobbed up serenely at some lower station on the trail. In this fashion this curious or vigilant fowl piloted us for at least *half a mile*. Whether he was consciously trying to decoy us, or merely anticipating our plans by some sort of subtle telepathy, I do not know.

A neighboring pair evinces such anxiety that we are led to a little fir sapling which, emerging from *a four foot snow bank*, holds aloft,



Taken in Washington *Photo by the Author*

"THE VARIED THRUSH BUILDS . . IN THE OPEN OF THE UNDERWOOD"

triumphantly, a nest with three eggs. The next pair have shown better taste, for they have placed their domicile full sixty feet up and eight feet out on the first limb of a stately hemlock. A tap on the bole sends the female off like a silent ghost, but such high pickings offer no temptation.

A typical nest, freshly examined, is placed at a height of six feet in the top of a tiny fir sapling, which required the support of a chance armful of leaning vine-maple poles. The nest proper is an immense affair, eight and a half inches deep and twelve inches by eight in diameter outside, and two and a half in depth and four in width inside. It would weigh about three pounds, and is, therefore, quite compact, although the moss, which is the largest element in its composition, holds a large quantity of moisture. Twigs from six inches to a foot in length enter into the exterior construction, and these are themselves moss-bearing. Stripping off the outer moss-coat, one comes to the matrix or crucible-shaped vessel of rotten wood, an inch or more in thickness throughout, and sodden with moisture. Within this receptacle, in turn, appears another cup with walls three-quarters of an inch in thickness, and composed solely of dried grasses and moss, neatly woven and turned. The innermost lining comprises the same materials, not very carefully smoothed, but amazingly dry, considering the character of their surroundings. The brim of the nest is strengthened by bark-strips, the inner fiber of cedar bark being exclusively employed for this purpose; while the finishing coat consists of moss, compacted and flawless. There are, in fact, few nests to compare with that of the Varied Thrush in strength, elaborateness, and elegance.

No. 152

Western Bluebird

A. O. U. No. 767. **Sialia mexicana occidentalis** Townsend.

Synonyms.—California Bluebird. Mexican Bluebird. Townsend's Bluebird.

Description.—*Adult male:* Head and neck all around and upperparts rich, smalt blue, brightest on crown, rump, and wings, paler and grayer on sides of neck and on throat, where gentian blue; the shafts of wing-quills and tail-feathers, and the exposed tips of the former, black; more or less dull chestnut on scapulars, usually irregularly continuous across back; sides of breast and sides, continuous across breast, grayish chestnut; belly, flanks, crissum, and under tail-coverts dull grayish blue (campanula blue to pearl blue). Bill black; feet blackish; iris dark brown. *In winter:*

The chestnut of scapulars increases broadly, sometimes involving the whole upper back; touches of chestnut appear on crown, hind-neck, and sides of head and neck; and the blue of throat is slightly veiled by grayish brown skirting. *Adult female:* Somewhat like male, but everywhere paler and duller; blue of upperparts clear only on rump, tail, lesser and middle wing-coverts, and outer edges of primaries, there lighter than in male (amparo blue to flax-flower blue); first primary and outermost rectrices edged with white; chestnut of scapulars obsolete, merged with dingy mottled bluish or brownish gray of remaining upperparts; exposed tips of remiges dusky; blue of underparts replaced by sordid bluish gray, and chestnut of subdued tone (pale cinnamon-rufous) veiled by grayish brown tips of feathers. *Young birds* somewhat resemble the adult female, but the blue is restricted to flight-feathers and rectrices, that of the male being brighter and bluer, that of the female duller and greener. In both sexes the back and scapular areas are brownish, heavily and sharply streaked with white; and the breast (jugulum, sides of breast, and sides) is dark sepia brown, so heavily streaked with white as to appear "skeletonized." Length of adults 165-177.8 (6.50-7.00); wing 105 (4.13); tail 65 (2.56); bill 12.5 (.49); tarsus 21.5 (.85).

Recognition Marks.—Sparrow size; rich blue and chestnut coloring of male; darker blue coloration of wings in female distinctive, as compared with that of *S. currucoides.*

Nesting.—*Nest:* In cavities, natural or artificial, old woodpecker holes, hollow trees, stumps, posts, bird-boxes, etc., lined with grasses and, occasionally, string, feathers, and the like. *Eggs:* 4 to 6; pale bluish green, unmarked. Av. size 20.8 x 15.7 (.82 x .62). *Season:* May–July; two broods.

Range of *Sialia mexicana.*—Western North America from British Columbia south to the highlands of Mexico.

Range of *S. m. occidentalis.*—The Pacific Coast States, broadly in the North to include southern British Columbia, northern Idaho, and western Montana, south to the southern border of California.

Distribution in California.—Of regular occurrence as a breeder at middle levels of Transition and Canadian zones nearly throughout the State. Occasionally breeds at lower levels, even in Lower Sonoran. Winters sparingly in Transition, and abundantly at the lower levels, including the deserts.

Authorities.—Audubon (*Sylvia occidentalis*), vol. v., 1839, p. 41 (Santa Barbara); *Ridgway,* Auk, vol. xi., 1894, p. 154, part (monogr., localities in Calif.); *Beal,* U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 97 (food); *Grinnell,* Univ. Calif. Pub. Zool., vol. v., 1908, p. 132 (San Bernardino Mts.; desc. nest and eggs; crit.); *ibid.,* vol. xii., 1914, p. 216 (Colorado Valley; crit.); *Grinnell and Swarth,* Univ. Calif. Pub. Zool., vol. x., 1913, p. 316 (San Jacinto Mts.; crit., regarding *S. m. anabelae*).

MIU-MIU-MIU—mute you are, or next thing to it, you naughty little beauties! Why don't you sing, as do your cousins across the Rockies? You bring spring with you, but you do not come shifting your "light load of song from post to post along the cheerless fence." Is your beauty, then, so burdensome that you find it task enough to shift that?

Alack-a-day! our Bluebird does not sing! You see, he comes from Mexican stock, *Sialia mexicana,* and since we will not let him talk Span-

Taken in Washington

Photo by F. S. Merrill

LITTLE BOY BLUE

ish or, Aztecan, or Zampeyan, he flits about silent in seven languages. Er--but--what's this? Can we be mistaken? Here is what Dr. J.K. Townsend[1] says of the Western Bluebird: "Common on the Columbia River in the spring. It arrives from the south early in April, and about the first week in May commences building. * * * A flock of eight or ten of these birds visited the British fort on the Columbia, on a fine day in the winter of 1835. They confined themselves chiefly to the fences, occasionally flying to the ground and scratching among the snow for minute insects, the fragments of which were found in the stomachs of several which I killed. After procuring an insect the male usually returned to the fence again, and warbled for a minute most delightfully. This note although somewhat like that of our common *Wilsonii* [i. e., *S. sialis*], is still so different as to be easily recognized. It is equally sweet and clear but of so little compass (at this season) as to be heard only a short distance. In the spring it is louder, but it is at all times much less strong than that of the common species."

Dr. Brewer, condensing Nuttall, says:[2] "He [Nuttall] speaks of its habits as exactly similar to those of the common Bluebird. The male is equally tuneful throughout the breeding season, and his song is also very similar. Like the common species he is very devoted to his mate, alternately feeding and caressing her and entertaining her with his song. This is a little more *varied, tender, and sweet* [editor's italics] than that of the Eastern species, and differs in its expressions."

Our own Dr. Cooper testifies:[3] "It also differs [i. e., from *S. sialis*] in its song, which is not so loud as sweet, and is curiously performed to sound as if two birds were singing at once and in different keys." Here the tradition begins to waver. More recent writers say: "The song of the Western Bluebird is not full but is, like his manners, gentle and sweet" (Lord); and, "It has the soft warble of its kind" Mrs. Bailey). But again Dr. Brewer writes:[4] "In regard to their song Mr. Ridgway states that he did not hear, even during the pairing season, any note approaching in sweetness, or indeed similar to, the joyous spring warble which justly renders our Eastern Bluebird (*S. sialis*) so universal a favorite." The doctors disagree. Some one has been dreaming!

It is always interesting and sometimes amusing thus to trace the early struggles of truth. Preconceptions die hard. The Eastern Blue-

[1] Narrative (1839), p. 344.
[2] Baird, Brewer & Ridgway, Land Birds, Vol. I., p. 65 [Reprint].
[3] Rep. Pac. R. R. Surv., Vol. XII., 1859, p. 173.
[4] Baird, Brewer & Ridgway, Land Birds, Vol. I., p. 66 [Reprint].

bird warbles delightfully; therefore, the Western Bluebird *ought* to —but it doesn't! In an experience of some thirty-nine years, the author has never heard from the Western Bluebird's beak an utterance which deserves the name of song, or anything more musical than the threefold *miu*. As an instance of this pathetic ineffectiveness, I recall a morning at Idyllwild (in the San Jacinto Mountains), where I heard a concert in which not less than six Bluebirds joined. They were in deadly earnest, for favors were at stake, but their best offering was, *kititick, miu; kitick miu, miu, miu*. Akin to this intrusive, rattling *kitick*, is the phrase used in alarm or rebuke, *chewtew*, or *chewtew queelp*, where the last note has a faintly-dawning musical quality. At the nest one hears a shorter note of protest, which sounds remotely like the *kek* of a distrustful Guinea-fowl; and the bird indulges also certain very unmusical chittering and clucking notes, when endeavoring to attract the attention of its young.

Taken in Oregon *Photo by Finley and Bohlman*

WESTERN BLUEBIRD AT NEST

From this it is clear that the Western Bluebird is no musician, but he *is* a beauty; and he does have the same gentle courtesy of bearing which has endeared the Bluebird wherever known. It is impossible to treat of Bluebird's domestic life without recourse to humanizing terms. Bluebird is a gentleman, chivalrous and brave, as he is tender and loving. Mrs. Bluebird is a lady, gentle, confiding, and most appreciative. And as for the little Bluebirdses they are as well-behaved a lot of children as ever crowned an earthly affection.

Both parents are unsparing in their devotion to the rising generation, and so thoroughly is this unselfish spirit reflected in the conduct of the children that it is the subject of frequent remark. Mr. Finley tells[1] of an instance in which a first brood, just out of pinafores, turned to and helped their parents provide food for another batch of babies, and this not once, nor twice, nor casually, but regularly, until the second brood were well matured. Instinct! Instinct! say you? But, wherefor? Is it not rather a foregleam of ethical life, an out-cropping of that altruistic tendency which hints a deeper kinship with the birds than we have yet confessed?

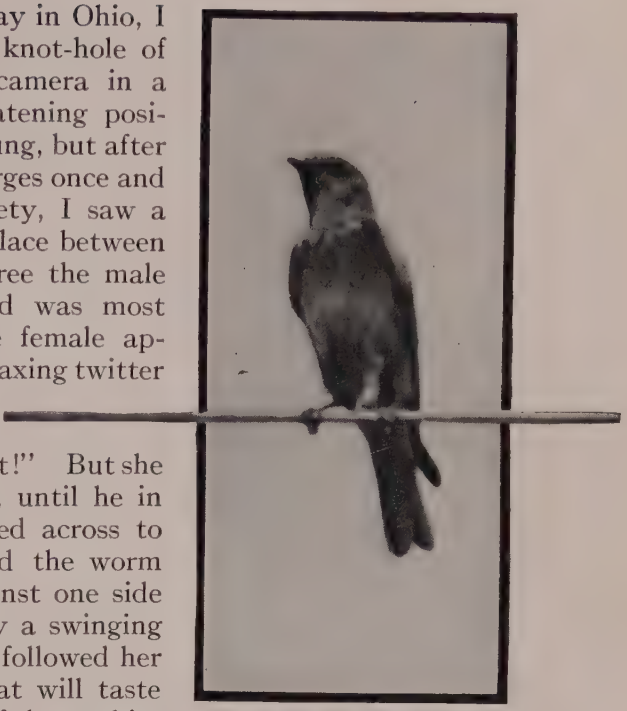
Taken in Modoc County *Photo by the Author*

NEST AND EGGS OF WESTERN BLUEBIRD

And real gallantry between the sexes

[1] "American Birds," by William Lovell Finley (1907), p. 170

may not be less ethical. On a day in Ohio, I located a Bluebird's nest in the knot-hole of an apple tree, and planted the camera in a commanding and somewhat threatening position. The cavity held callow young, but after the parents had visited their charges once and were somewhat relieved in anxiety, I saw a very pretty passage which took place between them. In a neighboring apple tree the male secured an elegant fat grub and was most devoutly thrashing it, when the female appeared upon the scene. With a coaxing twitter she approached her mate; but he backed off, as much as to say, "Wait, wait, dear, he isn't dead yet!" But she was hungry and pressed her suit, until he in good-natured impatience flitted across to another limb. Here he whacked the worm vigorously, striking him first against one side of the limb and then the other by a swinging motion of the head. The female followed her lord and cooed: "Oh, I know that will taste good. Um! I hav'n't tasted one of those white grubs for a week. So good of you, dearest! Really, don't you think he is done now?" The valiant husband gave the luckless grub just one more whack; and then, with every appearance of satisfaction, he hopped over toward his better half and placed the morsel in her waiting beak, while she received the favor with quivering wings and a soft flood of tender thanks. Altogether I think I never saw a prettier exhibition of conjugal affection, gallantry, and genuine altruism than the sight afforded. It was not only like the behavior of humans; it was like the best in human life, a pattern rather than a copy, an inspiration to nobility and gentleness of the very highest type.



Taken in San Luis Obispo County
Photo by the Author

WESTERN BLUEBIRD

Bluebirds have a decided preference for human society, or at least are very quick to appreciate hospitality of proffered bird-boxes. Being chiefly insectivorous, their presence is a benediction to any neighborhood, and is an especial advantage in the orchard. A friend of mine in the East, who owns two young orchards and a small vineyard, maintains upon his premises upwards of fifty Bluebird boxes, each composed of a section of a hollow limb closed with a board at top and bottom, and provided with a neat auger-hole in the side. The boxes are made fast to the apple-

trees or lodged at considerable intervals along the intersecting fences. The experimenter finds that more than half of the boxes are occupied each season, and he counts the birds of inestimable value in helping to save the grapes and apples from the ravages of worms.

In providing for Bluebird's comfort, care must be taken to expel cats from the premises; or at least to place the box in an inaccessible position. English Sparrows, also, must be shot at sight, for the Bluebird, however valorous, is no match for a mob. Tree Swallows or Violet-greens may covet the nesting-box—your affections are sure to be divided when these last appear upon the scene—but the Bluebirds can take care of themselves here. For the rest, do not make the box too nice; and above all do not make it of new lumber. Nesting birds do not care to be the observed of all observers, and the more natural their surroundings, the more at ease your tenants will be. An occasional inspection will not be resented, if the Bluebirds know their landlord well. There may be some untoward condition to correct,—an overcrowded nestling, or the like. At the end of the season the box should be emptied, cleaned, and if possible sterilized.

While the Western Bluebird raises, or attempts to raise, two broods in a season, the stock is not a very vigorous one, at least in the South. Possibly those birds which do nest in a desultory fashion at the lower levels, even as far south as San Diego, are of a residual, unprogressive stock, destined in time to perish. Be that as it may, quite a different account comes down to us of the bird's status and behavior further north. On Puget Sound, for example, the Western Bluebird is distinctly on the increase. An observer in Seattle unintentionally brought to light the exceptional vigor of the northern stock, when he tried to prevent a pair of Western Bluebirds from nesting in a bird-box which he had prepared for the Violet-green Swallows. Being a thrifty oölogist, the observer did not intervene until the Bluebirds had completed a nest and filled it with six eggs. This the gentleman removed entire, and considered the incident closed. But the Bluebirds thought otherwise, and two weeks later presented the egg-man with another set of six, which he accepted—with nest. Nothing daunted, the Bluebirds fought off the insistent Swallows and tried again. Result, six eggs and another rebuke. In this fashion the indomitable birds provided six nests of six eggs each in the same box in one season.

No. 153

Mountain Bluebird

A. O. U. No. 768. **Sialia currucoides** (Bechstein).

Synonym.—Arctic Bluebird.

Description.—*Adult male in summer:* Above rich cerulean blue (quite variable, light cerulean blue to Bradley's blue), palest (cendre blue) on forehead, brightest on upper tail-coverts, darkest (spectrum blue) on lesser wing-coverts; below pale blue (cendre blue) on chest, shading on sides of head and neck to color of back, paling on lower belly, crissum, and under tail-coverts to whitish; exposed tips of flight-feathers dusky. Bill and feet black; iris dark brown. *Adult male in winter:* Blue somewhat duller, and feathers skirted more or less with brownish above and below, notably on hind-neck, upper back, breast and sides. *Adult female:* Like male, but paler blue; clear on rump, tail, and wings only; elsewhere quenched in gray; pileum, hind-neck, back, and scapulars mouse-gray, tinged with greenish blue; outer edge of first primary and outer web of outermost rectrix, basally, white; a whitish orbital ring; underparts tinged with pale brownish gray, fading to white posteriorly. *Young birds* somewhat resemble the adult female, but are darker and duller (benzo brown); the blue of rump and upper tail-coverts is replaced by ashy gray; the back is faintly streaked with white; the throat and jugulum are pale gray, indistinctly streaked with whitish; breast, sides, and flanks chiefly drab (benzo brown), each feather having a white center. Length 177.8 (7.00) or over; wing 117 (4.60); tail 72 (2.83); bill 13.4 (.53); tarsus 22.6 (.89).

Recognition Marks.—Sparrow size; azure blue coloration of male, and bluish gray and azure of female unmistakable.

Nesting.—*Nest:* Much as in preceding species. *Eggs:* Usually 5 (6 and 7 of record); uniform pale bluish green, sometimes very light bluish white, rarely pure white. Av. size 21.6 x 16 (.85 x .63). *Season:* May–June; two broods.

General Range.—Mountain districts of western North America, north to southern Yukon and northwestern British Columbia; breeding eastward to central Saskatchewan, the Black Hills, and western Texas; westward to the Cascade-Sierras; southward to the higher ranges of Arizona, New Mexico, and Chihuahua; in winter irregularly eastward upon the Great Plains, and southward to southern California, Lower California, and Sonora.

Distribution in California.—A common breeder in the Boreal zones of the higher mountains, including the desert ranges; south to the San Bernardino Mountains. Occurs in the Warner Mountains, on Mt. Shasta, and upon the inner, more arid portions of the northern coastal ranges. Winters irregularly at the lower levels, except in the humid sections.

Authorities.—**Gambel** (*Sialia arctica*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 113; *C. H. Townsend*, Proc. U. S. Nat. Mus., vol. x., 1887, p. 232 (Mt. Shasta, etc.; breeding habits); *Ray*, Auk, vol. xx., 1903, p. 193 (Lake Valley, breeding); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 109 (status in s. Calif.); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 109 (Fresno; winter habits; dates of arrival and departure).

Taken in Idaho *Photo by H. J. Rust*

MOUNTAIN BLUEBIRD AT NEST

GENTLE and demure, as well as brave and high-spirited, is this sky-born thoroughbred of the Sierras, this bit of heaven's own blue incarnate. We shall think only of the milder qualities when we come upon a company of Mountain Bluebirds deployed over some south-sloping hillside on a sunny winter's day. Pasture weeds or fence-posts serve for lookout stations, whence the mountaineer may spy the crawling beetle, and seize daintily with flutterings of purest azure. Some pensive notes, *chee'ry* or *dear'ie*, like those of the Eastern Bluebird (*S. sialis*), but not so clear-cut, will be heard; or, if we press too closely, certain thrush-like *tsook*s of dainty alarm. Other song the birds have none, save an emphatic *whew* (never '*miu*'), uttered under stress of emotion. For here, again, the entire song tradition, including the "delightful warble" attributed to the bird by Townsend, appears to be quite without foundation, as in the case of *S. m. occidentalis*.

Occasionally, during migration, this species associates itself with the Western Bluebird; and the writer will not soon forget the vision of loveliness afforded by such a mixed flock of fifty birds as, on a raw March day, it swept northward in azure tranquility. Again toward the end

of the same month, a great wave of migration occurred, and some two hundred birds, all "Arctics" now,[1] and at least one third of them females, distributed themselves over a half deserted "townsite"—with what delighted appreciation on our part, may best be imagined. The males are practically *all* azure; but the females have a much more modest garb of reddish gray, or stone-olive, which flashes into blue on wings and tail, only as the bird flits from post to post.

Taken in Inyo County *Photo by the Author*

THE VALIANT MRS. BLUEBIRD

The Mountain Bluebird is a frequent and most endearing sight of the timberline association in the Sierras. Here, amidst retreating snowfields and bursting greenery, where everything is fresh and clear-cut and radiant, our azure incarnation seems exactly at home. The jagged peaks are cutting the horizon into blue tatters, anyhow, and it is no matter for surprise when detached shreds of the cerulean wreckage flutter over the heather, or lose themselves by the margin of some turquoise pool. And here, where gnarled pine trees have felt the tooth of the frost and have yielded sheltering hollows, the Mountain Bluebirds make their nests. Or, perchance, some hardy woodpecker has paved the way and left a princely excavation, which the Bluebirds have only to line with soft dead grasses and call their own.

From five to seven dainty eggs, the palest possible blue, furnish occasion for pride and solicitude, and a little later for gallantries of ministration and defense, the sweetest and the bravest which this gallant old world knows. And if I had not seen a score of male Bluebirds whose sole concern was to protect their home with its precious contents, I should not tell this tale of another not so gallant. There were seven babies, and the very least excuse for cowardice in this case, but I had marked this bird as a timorous fowl, who would not even venture up to have his picture taken. So when, one day, a great outcry arose with reference to a Clark's Crow, I hurried over. Some determined avenger

[1] Formerly *Sialia arctica.*

was after the miscreant, and he doubled and twisted hither and yon (but always yonner if possible), uttering wild cries of rage and execration, while many lesser fowls joined the hue and cry in a less determined way. While this commotion was going on, our Bluebird *père*, who happened to be seated on a stump a hundred feet from the nest, was a study. Instead of joining the pursuit he simply crouched and shuddered, as he turned an apprehensive eye aloft. He was paralyzed with fear. And lo and behold, when all the excitement was over, it was his mate, *mère* Bluebird if you

Taken in Inyo County *Photo by the Author*

NESTING TIME!

YES, THIS IS SNOW, BUT ONE OF THE TREES CONTAINS A MOUNTAIN BLUEBIRD'S NEST WITH EGGS NEAR TO HATCHING

please, who emerged from the fray panting and triumphant! Now what do you think of that? Certainly the ladies of California are coming to their own! It is only fair to add that while the heroine was recovering her breath the male bird went dutifully after a worm.

This same pair, observed at the Little Cottonwood Lakes (alt. 11,000), showed other curious, interesting, and highly individual psychological reactions. It all came of my trying to secure photographs. Inasmuch as I had to have the morning light at my back, and the principal or accustomed entrance was on the west side, I stopped up this

entrance with sprigs of sage, in order to oblige the birds to show themselves, in seeking entrance, from the east. The female tried it first and she was much nonplussed over the situation. She returned again and again to the perch, which commanded both sides, but she sought entrance only in the accustomed place. Again and again she fluttered in front of the sage-twigs, and then, baffled, she would alight upon the ground and wrestle mentally with the difficulty. Finally, after at least half a dozen fruitless attempts, the mental gates appeared to open to her and she flashed in in a trice. Thereafter she made straight for the proper new entrance and had no difficulty. The male had quite a different and much more exasperating experience. He readily admitted the impossibility of finding entrance on the west, but he made a bad fist of it on the other side. The entrance slit was shaped as in the accompanying diagram:

where P represents the perch, E the proper entrance, and F a false entrance, too narrow for admission. The male sought entrance repeatedly at F. He worked at it frantically, and as often as he was foiled he returned, scolding vigorously. Again and again he returned to the charge, as often to be blocked at F. Finally, after fifteen minutes of intermittent endeavor, he found E and passed in easily. But on several occasions thereafter he tried F. On a later occasion, finding that the birds passed in and out too quickly for my photographic purposes, I blocked the top of E with sage but left room for entrance. The female accommodated herself readily to this change, but the male made hard work of it. He was so afraid of touching the brush that he crowded the shoulder of wood instead. Once inside, he had even greater difficulty in emerging, insomuch that on the second occasion I had actually to remove the obstruction to prevent undue fright. It never occurred to either bird to attempt its removal, although this would have been very easy of accomplishment. Verily, we are all "human."

No. 154

Townsend's Solitaire

A. O. U. No. 754. **Myadestes townsendi** (Audubon).

Synonyms.—Townsend's Flycatching Thrush. Townsend's Flycatcher.

Description.—*Adults:* General color smoky gray, lighter below, bleaching on throat, lower belly, axillars and under tail-coverts; a prominent white orbital ring; wings and tail dusky; wing quills crossed by extensive tawny area originating at base of innermost secondary and passing obliquely backward—this appears in the closed wing as a spot at the base of the exposed primaries but does not reach nearer the edge of the wing than the fifth or sixth primary; another obscure tawny or whitish

patch formed by subterminal edging on outer webs of seventh and eighth (sometimes ninth) primaries; greater coverts and tertials tipped with white of varying prominence; a blotch of white on each side of tail involving distal third of half of outermost rectrix, tip of second and sometimes tip of third. Bill and feet black; irides brown. *Young* birds are heavily spotted with buff above and below (showing thereby Turdine affinities),—above, each feather has a single large spot (rhomboidal in some, heart-shaped in others) of buff, centrally, and is edged with blackish, thus producing a scaled appearance; below, the ground color is a pale buff or buffy gray with blackish edgings to feathers. Length 203.2-215.9 (8.00-8.50); wing 117 (4.60); tail 103 (4.05); bill 12.4 (.49); tarsus 20 (.79).

Recognition Marks.—Towhee size; brownish gray coloration with spots of white (or pale tawny) on tail and wings. No black, as compared with a Shrike.

Nesting.—*Nest:* Of coarse twigs and moss; lined with fine grasses, or rarely, pine needles; placed on hillside at base of tree, or under a boulder, in cranny of tree-trunk, stub, upturned tree-root, river-bank, road-cut, or rock-wall. *Eggs:* 3 or 4, rarely 5; white, pinkish, grayish, or greenish white; spotted sharply or diffusely, sparingly or heavily, with vinaceous brown and allied shades. Av. of 18 eggs from Mt. Shasta 22.1 x 16.8 (.87 x .66); index 76. *Season:* May–July, according to altitude; one brood.

General Range.—Western North America. Breeds in the Boreal zone from east-central Alaska, southwestern Mackenzie, and western Alberta, south through the Cascade-Sierras to the San Bernardino Mountains, and through the Rockies to New Mexico and Arizona, and in the Transition zone in the mountains of Mexico to Zacatecas. Winters irregularly southward from southern British Columbia and Montana, and straggles irregularly eastward.

Distribution in California.—Common resident of high Transition and Canadian zones in the Sierra Nevada Mountains, the Warner Mountains, and the San Bernardino Mountains. More sparingly resident in the Trinity Mountains and south to South Yolla Bolly Mountain. Found in winter at lower latitudes and levels, even upon the deserts and, in the Southwest, to sea-level.

Authorities.—Gambel (*Ptilogonys townsendii*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1847, p. 157; *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 128 (San Bernardino Mts.; desc. habits, nest and eggs); *Beal*, U. S. Dept. Agric., Bull. no. 280, 1915, p. 3 (food); *Dawson*, Condor, vol. xxi., 1919, p. 12, figs. (Mt. Shasta; habits, nesting, song, etc.); *Whittle*, Condor, vol. xxiv., 1922, p. 78, fig. (song flight).

VIEWED from any standpoint, taxonomic, psychologic, or sentimental, the Townsend Solitaire is a feathered Sphinx. It has been called Flycatcher, Thrush, and a combination of the two; but the name Solitaire seems best to express both our noncommittal attitude toward the subject, and the demure independence with which the bird itself proceeds to mind its own affairs. Barring the matter of structure, which the scientists have now pretty well threshed out, the bird is everything by turns. He is Flycatcher, in that he delights to sit quietly on exposed limbs and watch for passing insects. These he meets in midair and bags with an emphatic snap of the mandibles. He is a Shrike in appearance and manner, when he takes up a station on a fence-post and studies the ground intently. When his prey is sighted, at distances varying from ten to thirty feet, he dives directly to the spot, lights, snatches, and swal-

lows, in an instant, or, if the catch is unmanageable, he returns to his post to thrash and kill and swallow at leisure. During this pouncing foray, the display of white in the Solitaire's tail reminds one of the Lark Sparrow. Like the silly Cedar-bird, the Solitaire gorges itself on fruits and berries in season. Like a Thrush, when the mood is on, the Solitaire skulks in the thickets or woodsy depths, and flies at the suggestion of approach. Upon alighting it stands quietly, in expectation that the eye of the beholder will thus lose sight of its ghostly tints among the interlacing shadows.

Taken in Fresno County *Photo by the Author*

A CAUTIOUS APPROACH

And so one might go on comparing indefinitely, but the bird is entitled to shine in its own light. The Solitaire is *sui generis*—no doubt of that. As soon as we establish for it a certain line of conduct, the bird does something else. We banish it to the mountains for the nesting season—a pair nests in a railroad cut near sea-level. We describe to our friends the beauty of its song—they go to its sanctuaries and the bird is silent. A bird of such

dainty mould should winter in the South. It does—at times. It also winters on the northern border of the United States. This poet of the solitudes, he should avoid the haunts of men. He does, usually. But another time he may be seen hopping from bush to log in a suburban swamp, or moping under the edge of a new sidewalk. Indeed, I once saw a Solitaire flutter up from under a passenger coach, as it lay in station. He had happened to spy some bread-crumbs and there was nothing to hinder save the conductor's brisk "all aboard." Surely such a bundle of contradictions you never did see—and all belied by an expression of lamb-like artlessness and *dolce far niente* which would do credit to a rag doll.

Taken in the San Bernardino Mts. *Photo by Wright M. Pierce*

A TYPICAL NEST

The favored few who have known the Solitaire in his mountain haunts have not failed to testify to the beauty of his song. Indeed, I am tempted to pause here and present a little anthology of appreciation of Solitaire music, so that the reader may judge for himself, if possible, how far the poet bird and how far the witchery of romantic association may be responsible for the reputed excellence of this bird's song. Dr. J. S. Newberry, who in central Oregon encountered the bird in such numbers as

Taken on Mt. Shasta *Photo by the Author*

SOLITAIRE'S NEST AMONG THE SNOWBANKS
AN X MARKS THE EXACT LOCATION OF AN OCCUPIED NEST

have never been duplicated elsewhere, declared the Solitaire song to be full, rich, and melodious, like that of the *Mimus:*[1] "With the first dawn of day they began their songs, and at sunrise the valley was perfectly vocal with their songs. Never anywhere have I heard a more delightful chorus of bird music. Their song is not greatly varied, but all the notes are particularly clear and sweet, and the strain of pure gushing melody is as spontaneous and inspiring as that of the Song Sparrow."

Mr. T. M. Trippe, speaking for the Clear Creek Canyon in Colorado, says:[2] "Toward the middle and latter part of winter, as the snow begins to fall, the Flycatching Thrush delights to sing, choosing for its rostrum a pine tree in some elevated position, high up above the valleys; and not all the fields and groves, and hills of the Eastern States, can boast a more exquisite song; a song in which the notes of the Purple Finch, the Wood Thrush and the Winter Wren are blended into a silvery cascade of melody, that ripples and dances down the mountain sides as clear and sparkling as the mountain brook, filling the woods and valleys with ring-

[1] Rep. Pac. R. R. Survey, Vol. VI., 1857, p. 82.
[2] Coues, Birds of the Northwest (1874), pp. 95-96.

ing music. At first it sings only on bright clear mornings; but once fairly in the mood, it sings at all hours and during the most inclement weather."

Mr. A. W. Anthony in an earlier volume of "The Condor" says:[1] "A few of the more favored have listened to its incomparable song, as, perched on the topmost twig of a dead fir, in the solemn silence of the high Sierras, or in deep and rugged canyons of the Rocky Mountains, this shy retiring bird pours forth its very soul in a wild ringing outburst of song that seems to descend from crags and ledges in a veritable shower of crystallized melody. With none of our song birds is the song so long

[1] Condor, Vol. V., Jan., 1903, p. 10.

Taken in Mt. Shasta *Photo by the Author*

A CLOSE-UP

THE FEMALE, SEATED AT THE BASE OF A SHASTA FIR, IS STICKING TO HER EGGS AT A RANGE OF ONLY TWO FEET

sustained as with this species, lasting as it does for several minutes, sometimes without a break."

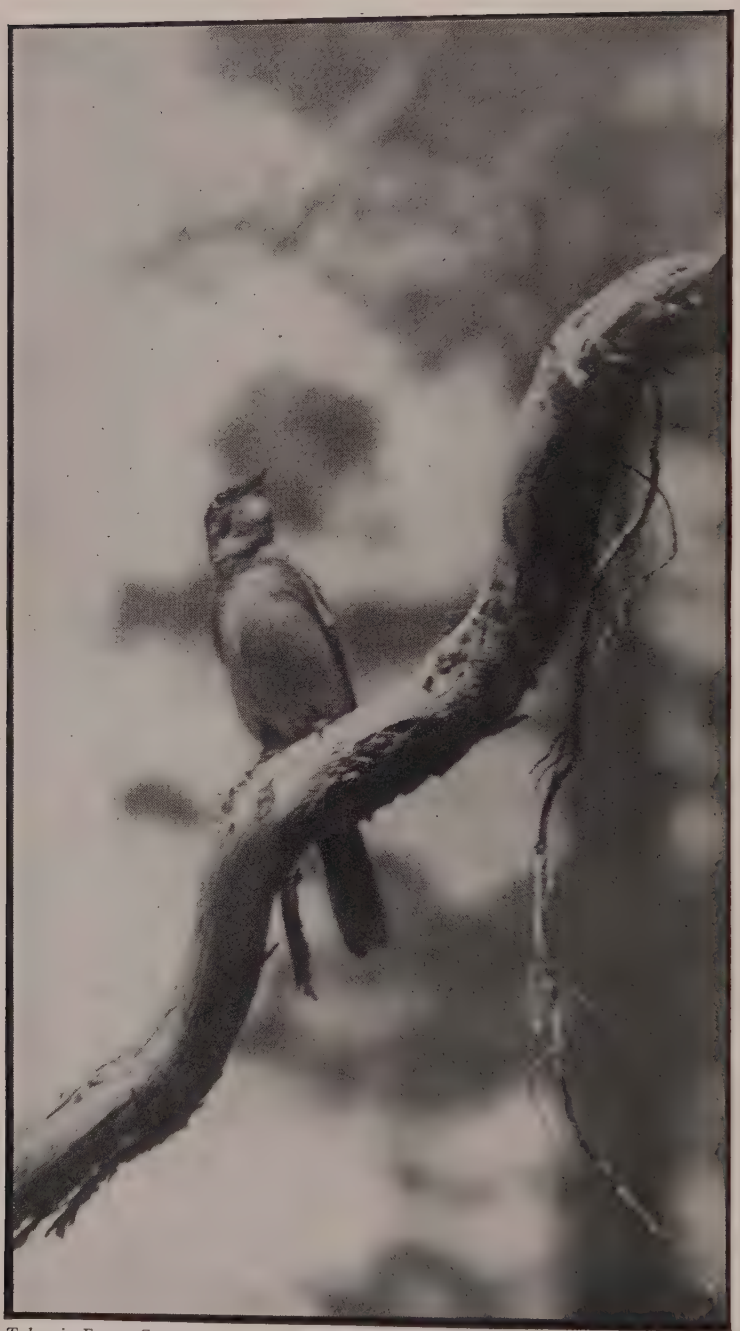
And here is an appreciation in which the bird is surely as much indebted to the poet as the poet to the bird. It is from the gifted pen of Forrest S. Hanford:[2] "So rare a singer is the Solitaire that during my mountain rambles, extending over a period of thirteen years, I have heard the song on only five occasions. The first time was in the forenoon of one of those bright, exquisite days of early spring at Lake Tahoe, when the warring elements had declared a

Taken on Mt. Shasta *Photo by the Author*

A NOT-QUITE-SO-CLOSE-UP
ANOTHER NEST, ALSO AT THE BASE OF A SHASTA FIR

truce and were at rest for a time. The little shadowy canyon wherein I rested enjoyed a hushed and solemn tranquility not diminished, but rather added to, by a drowsy murmuring from a bright brook splashing on its way to the lake. This, I thought, could be none other than the haunt of a Solitaire, and I wished that I might see the bird; and as in answer to my prayer came one, a small gray ghost of a bird that flitted silently in and out of the leafy corridors of its retreat, finally resting on

[2] Condor, Vol. XIX., Jan., 1917, pp. 13-14.



Taken in Fresno County *Photo by the Author*

A TOWNSEND SOLITAIRE
THE BIRD'S THROAT IS DISTENDED WITH FOOD GATHERED FOR HER CHICKS

the limb of a pine not ten feet away. And as I watched, the feathers of his breast and throat rose with a song that softly echoed the beautiful voices of the brook, the gurgling of eddies, the silvery tinkle of tiny cascades, and the deeper medley of miniature falls. Infinitely fine and sweet was this rendering of mountain music. At times the song of the bird rose above the sound of the water in rippling cadences —not shrill, but in an infinite number of runs and modulated trills, dying away again and again to low plaintive whispering notes suggestive of tender memories."

And if the author himself ventures to add a little to this anthology, it is only on the first-hand authority of his field notebook:

Church Mountain, (Washington), May 12, 1905:

"Song * * a dulcet strain of varied notes. It reminds one strongly of the Sage Thrasher, but is somewhat less impetuous."

Yosemite Valley, June 11, 1914: "For the first time in years I hear again the strange, wild, broken thrush-like medley of the Solitaire. There are delicate flute-like trills and passages which contrast oddly with more metallic and prosaic notes. The surroundings are scattered trees of douglas fir and sugar pine with considerable intermixture of dwarf oak (*Q. morhus*), and heavy chaparral of manzanita, snowbush, and huckleberry.

"Another Solitaire held forth on the wall over which Nevada leaps. It was a romantic scene where a White-throated Swift dashed into a crevice near a Golden Eagle's nest, while a Solitaire sang a wild medley to the accompaniment of Nevada's roar!"

Mt. Shasta, alt. 7200, July 8, 1916: "Heard singing. The bird is evidently shifting about a little from place to place in a beautiful fir grove. His song is weird, eccentric, and unstudied, as refreshing as it is inconstant,—scarcely excellent enough to have had Newberry's encomium, yet very gratifying to the ear—and rare."

Mt. Shasta, alt. 6900, July 10, 1916: "A Townsend Solitaire sings from a dead limb near the summit of a tall fir tree, not less than 150 feet

Taken on Mt. Shasta *Photo by the Author*

A GROUND NEST AT BASE OF SHASTA FIR

Taken in Fresno County

Photo by the Author

INSECT-LADEN

above the ground. The song is broken and fragmentary, and is rendered in a matter-of-fact, passionless way which harmonizes well enough with the sedate bearing of the bird. Yet the song itself is one of the weirdest and wildest in nature's repertory."

It was during two magic weeks I spent on Shasta, weeks chiefly memorable for the constant presence of the Solitaire, and enlivened by the daily repetitions of their songs, that I studied the nesting habits of six pairs of these birds, and familiarized myself not alone with the "bell-like" scolding note, but also with the hitherto almost undescribed ecstasy song flight. So plentiful were the birds, indeed, and so frequently tuneful that one could scarcely credit Merriam's earlier statement based upon a much longer acquaintance with Shasta: "I saw six during our stay. * * * They were always silent and rather shy." (The future monographer of *bears* had small ear, I take it, for bird music.)

The strangest and most baffling sound of the western world is the musical *creaking* alarm note of the Townsend Solitaire. It is a ghostly, ventriloquistic, droning sound, uttered at frequent and monotonously regular intervals, yet with such a detached and altogether impersonal air that the authorship of the sound is distrusted, even when the bird is caught *in flagrante delictu*, that is, with mandibles beating time to the music. With this note the bird celebrates his disquietude over human intrusion, or notifies his mate of trouble brewing. In far happier mood is he when, all unsuspicious of hostile presence, he soars far above the tree-tops. When at a height of some 300 feet, he pauses and lets himself fall slowly, with fluttering wings, in a great spiral, while he pours out his soul in an ecstasy of song. Now more than ever he looks like the Mockingbird, save that his action does not at all savor of the grotesque. The song torrent on this occasion is light and sprightly in

Taken in Fresno County *Photo by the Author*

YOUNG SOLITAIRES IN NEST

character, reminding one more of the breathless rhapsody of the Lark Sparrow than the measured accents of a Thrush.

Nesting seems to take place at all levels, but it is, perhaps, most easily studied in the dark belt of Shasta firs which surrounds the mountain just below the snow line. The birds, indeed, appear to court the

Taken in Fresno County *Photo by the Author*

A NESTING SITE ON KINGS RIVER

AN X AT THE UPPER RIGHT HAND MARKS THE EXACT SPOT

fellowship of the snow-banks, and I have seen a bird quit her nest at the base of a Shasta fir tree and go flitting about over the snow, gleaning a snack of benumbed beetles and fallen flies.

Whether reared in such a ghostly silence as this, or cradled in a cranny which overlooks a brawling mountain stream, the baby Solitaires are as solemn as their parents and as phlegmatic. The youngsters whose portraits appear herewith were five in number—an unusually large family, by the way—who submitted to various photographic indignities, until the eldest suddenly resolved, launched out for "Kingdom Come," and, while half a dozen sympathetic Sierrans held their breath, avoided Kings River, which roared distractingly below, fetched a compass midair, and made a safe landing in deep shrubbery. The spell was broken, and before you could say "Jack Robinson" the nest was empty, and the quintette, all likewise successful, had become Solitaires, indeed.

No. 155

Western Golden-crowned Kinglet

A. O. U. No. 748. **Regulus regulus olivaceus** Baird.

Description.—*Adult male:* Crown-patch (partially concealed) bright orange or flame-color; a border of plain yellow feathers overlying the orange on the sides; these in turn bordered by black in front and on sides; extreme forehead white, connecting with white superciliary stripe; a dark line through eye; above bright olive-green, becoming olive-gray on cervix and sides of head and neck; wing-quills and tail-feathers much edged with light greenish yellow, the former in such fashion as to throw into relief a dusky spot on middle of secondaries; greater coverts tipped with yellow or whitish; underparts sordid white, sometimes dusky-washed, or touched on sides with olivaceous. *Adult female:* Similar, but with crown-patch plain yellow instead of orange. *Immature:* Without crown-patch or bordering black, gradually acquiring these through gradation of color. Length about 101.6 (4.00); wing 55 (2.16); tail 40 (1.57); bill 7.5 (.29); tarsus 17 (.67).

Recognition Marks.—Pygmy size; orange, or yellow, and black of crown distinctive.

Nesting.—*Nest:* lashed to and largely concealed by drooping twigs on under side of fir bough near tip, an exquisite ball of mosses, lichens, liverwort, fine grasses, etc.; bound together with cobwebs and lined with the softest materials, vegetable down, cow-hair, and feathers, 3½-7 inches in diameter, and placed from five feet *up. Eggs:* 7-9, rarely 10 (one of 11 on record), sometimes in *two layers*, dull white, cream white, or sordid cream-color, finely sprinkled, or not, with pale wood-brown or dull rufous, and sometimes, obscurely, with vinaceous gray. Av. size 13.7 x 10.2 (.54 x .40). *Season:* April–July 1; two broods.

Range of *Regulus regulus.*—The Palæarctic Region; in North America, breeding mainly north of the United States and in the mountains of the West; south in winter to the Gulf Coast and the highlands of Mexico and Guatemala.

Range of *R. r. olivaceus.*—Western North America; breeding in the Boreal zone from Kadiak Island and Kenai Peninsula, Alaska, south to the mountains of southern California, and in the humid Transition zone of the northwest coastal strip from southern Alaska to San Francisco Bay; resident or winter resident in the humid coastal strip, and winter resident or visitor from British Columbia to Guatemala.

Distribution in California.—Not common summer resident in the humid coastal strip south to Marin County, in the northern coastal ranges, along the central crest of the Sierra Nevadas, and in the Warner, San Bernardinos and San Jacinto Mountains. Common in winter in the humid coastal strip, and more sparingly and locally in timbered sections west of the Sierras, south to the mountains of Los Angeles County.

Authorities.—Cooper (*Regulus satrapa*), Orn. Calif., 1870, p. 32 (Sierra Nevada); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 84 (food); *Sheldon*, Condor, vol. x., 1908, p. 123 (Marin Co., desc. nest and eggs); *Grinnell and Swarth*, Univ. Calif. Pub. Zool., vol. x., 1913, p. 313 (San Jacinto Mts.; summer); *Ingersoll*, Condor, vol. xv., 1913, p. 85 (Sierra Nevada; destruction of nests).

THREE of these little Kings, namely, Gold-crest, Fire-crest, and Ruby-crest, have portioned out the Northern World amongst themselves; and of these, Gold-crest (*Regulus regulus*) must be deemed preëminent, a sort of czarlet, for he rules in the European realms of King Fire-crest (*Regulus ignicapillus*) no less than in those of the Ruby-crested Kinglet (*C. calendula*), of America. In the fir woods of the North *R. regulus* (*satrapa*) is the more abundant form; but in California its range is more narrowly confined to the mountain heights; while in winter it is very much less abundant and prominent than the well nigh ubiquitous Ruby-crown. But at that, it is really surprising how very few people do know this amiable little monarch. To one who seeks the honor of his aquaintance, he proves a most delightful friend; but he has his little modesties and reserves, becoming to a potentate, so that a thousand of him would never be "common," nor pall upon the senses.

Kinglets go in troupes, family parties, which keep a little to themselves ordinarily; although Chickadees and Nuthatches, or even Creepers and Wrens, are welcome messmates in the friendly winter-time. Evergreen trees, exclusively, are frequented, and the real abundance of the birds at all seasons is coextensive with that of the Douglas spruce (*Pseudotsuga douglasi*) and the various fir trees. With tireless energy they search both bark and branches for insects' eggs and larvæ scarce visible to the human eye. They peer about incessantly, bending and darting and twisting and squirming, now hanging head downward, if need be, now fluttering prettily against the under side of a branch; but always on the go, until frequently one despairs of catching fair sight of the crown for the necessary fraction of a second. Of course it's a Golden-crown; but, then, we want to *see* it.

And all the time Cutikins is carrying on an amiable conversation with his neighbor, interrupted and fragmentary, to be sure, but he has all day to it—*tss, tss-tsip-chip, tseek.*

Taken in the Warner Mts. *Photo by the Author*

THE SCENE OF KINGLET'S SUMMER COURT

Concerning the "song," one is a little puzzled how to report. One hears, no doubt, many little snatches and phrases which have in them something of the quality of the better-known carol of the Ruby-Crown, but they lack distinctness and completion. Moreover, they are never given earnestly, even in the height of the mating season, but, as it were, reminiscently, mere by-products of a contented mood. It may seem a little fanciful, but I am half tempted to believe that the Gold-crests are losing the ancient art of minstrelsy. The lines have fallen unto them in such pleasant places; food and shelter are no problems, and there is nothing of that shock and hazard of life which reacts most certainly upon the passion of song. And then it is *her* fault, anyway. Phyllis would rather whisper sweet nothings in the mossy bower than be serenaded, never so ably. Oh, perilous house of content!

It remained for Mr. J. H. Bowles, of Tacoma, Washington, after years of untiring effort, to discover, in 1902, the first nest of this western variety. And then it came by way of revelation—a fir branch caught

against the evening sky and scrutinized mechanically afforded grounds for suspicion in a certain thickening of the twigs under the midrib. Investigation revealed a ball of moss matched to a nicety of green with the surrounding foliage, and made fast by dainty lashings to the enveloping twigs; and, better yet, a basketful of eggs. The first record for California appears to have been made by Mr. Harry H. Sheldon, of San Francisco, who in the summer of 1907 took a set of five eggs on the Lagunitas Creek, in southern Marin County.

Nests, it seems, may be found at any height from the level of the eyes to sixty feet (higher, no doubt, if one's eye-sight avails), but always on the under side of a fir limb, and usually where the foliage is naturally dense. The nest-ball is a wonderfully compacted affair of moss, both green and gray, interspersed with liverworts, dried grasses, soft weed-fibers, and cow-hair. The deep depression of the nest cup scarcely mars the sphericity of the whole, for the edges are brought well in; so much so, in fact, that a containing branch overloaded with foliage upon one side, once tipped half way over without spilling the eggs. The deep cavity is heavily lined with cow-hair and abundant feathers of grouse or lesser fowls. These feathers are placed with their soft ends protruding, and they curl over the entrance in such fashion as almost or quite to conceal the eggs. One would like to particularize at great length, for no fervors of description can overstate the beauties of this Kinglet palace.

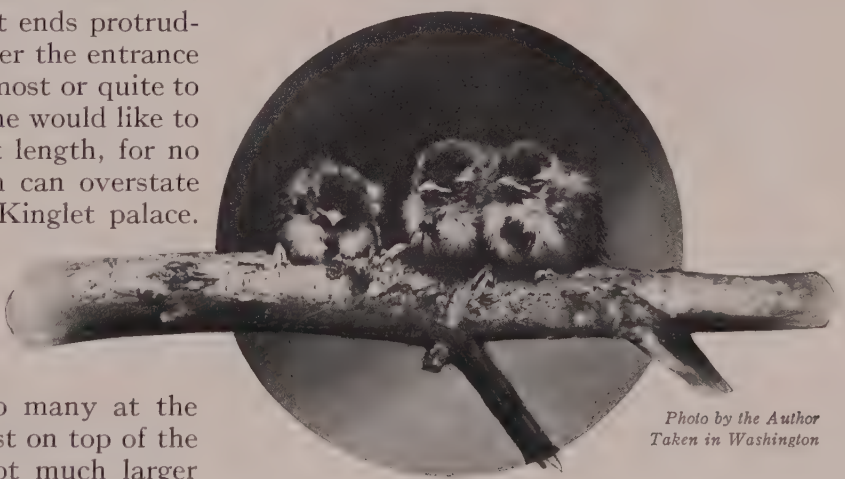


Photo by the Author
Taken in Washington

NID-NID-NODDING

Eggs vary in number from five to nine, seven and eight being the rule. I once took a nest with eleven—one too many at the least, for it had to rest on top of the others. They are not much larger than Hummingbirds' eggs and are quite as fragile. Mr. Bowles consumed twenty minutes in removing the contents of the big nest to the collecting box *without a break*. The eggs vary in color from pure white to sordid white and dusky brown. In the last two cases the tint may be due to a profusion of fine brown dots, or to advancement in incubation, the shell being so thin that the progressive stages of the chick's development are dimly shadowed through it.

The kinglet and queenlet are a devoted pair in nesting time. Whether gathering materials for the nest or hunting for food after the babies are hatched, they work in company as much as possible. They are discovered, it may be a hundred yards from the home tree, gleaning assiduously. After a time one of the birds by a muffled squeak announces a beakful, and suggests a return; the other acquiesces and they set off homeward, the male usually in the lead. It looks as though tracing would be an easy matter, but the birds stop circumspectly at every tree clump en route, and they are all too easily lost to sight long before the home tree is reached.

The female Kinglet is a close sitter and will not often leave the nest until the containing branch is sharply tapped. Then, invariably, she drops down a couple of feet and flits sharply sidewise, with manifest intent to deceive the laggard eye. Yet almost immediately she is minded to return, and will do so, if there is no further demonstration of hostilities. Re-covering the eggs is not always an easy matter, for the well is deep and the mouth narrow. One dame lighted on the brim of her nest and bowed and scraped and stamped, precisely as a carefully disciplined husband will when he brings muddy boots to the kitchen door. The operation was evidently quite unconnected with hesitation in view of my presence, but in some way was preparatory to her sinking carefully into the feather-lined pit before her. When she first covered the eggs, also, there was a great fuss made in settling, as though to free her feathers from the engaging edges of the nest. When the bird is well down upon her eggs there is nothing visible but the top of her head and the tip of her tail.

The male bird, meanwhile, is not indifferent. First he bustles up onto the nesting branch and flashes his fiery crest in plain token of anger, but later he is content to squeak disapproval from a position more removed.

While the mother bird is sitting, the male tends her faithfully, but he spends his spare moments, according to Mr. Bowles, in constructing "cock nests," or decoys, in the neighboring trees. These seem to serve no purpose beyond that of a nervous relief to the impatient father, and are seldom as carefully constructed as the veritable domus.

When the young of the first brood are hatched and ready to fly, the chief care of them falls to the father, while the female prepares for a second nesting. As to the further domestic relations one cannot speak with certainty, but it would seem probable that fall bird troops consist of the combined families of Mr. and Mrs. Quiverful.

No. 156

Ruby-crowned Kinglet

A. O. U. No. 749. **Corthylio calendula calendula** Linnæus.

Description.—*Adult male:* Above olive-green, duller anteriorly, brightening to greenish yellow on edgings of quills and tail-feathers; a partly concealed crest of scarlet (scarlet to grenadine red; in younger specimens peach-red to grenadine); two narrow whitish wing-bars formed by tips of middle and greater coverts; some whitish edging on tertials; a dusky interval separating greenish yellow edges on outer webs of secondaries; a whitish eye-ring and whitish skirtings around base of bill; underparts soiled white, heavily tinged with buffy and olivaceous-buff. Fall and winter birds are more strongly tinged with olivaceous. *Adult female and immature:* Similar, but without crown-patch. Length 101.6-114.3 (4.00-4.50); wing 59.2 (2.33); tail 43.7 (1.72); bill from nostril 6.4 (.25).

Recognition Marks.—Pygmy size; scarlet crest distinctive. Note wing-bars and whitish eye-ring of female and young. Lighter than *C. c. grinnelli.* Smaller and more olivaceous than *C. c. cineraceus.*

Nesting.—Does not breed in California—as in next form.

Remarks.—Whether or not the breeding birds of California, especially of southern California, are separable from those of the East, *C. c. calendula*, it is certain that vast numbers of an intermediate form, *infra grinnelli*, and indistinguishable from eastern specimens, coming presumably from Oregon and Washington, are present with us in winter and during migrations. It is equally certain that a grayer, "better," cineraceous bird is to be found in winter, notably in the Colorado River valley. Where this Ashy Kinglet breeds, or whether, indeed, we may not have two ashy forms, one from the southern Sierras and *one from the northern interior*, is not yet satisfactorily determined. I assume that *C. c. quasi-calendula* is extra limital in summer.

Range of *Corthylio calendula.*—North America, breeding in Boreal zones north of the United States, and in the mountains of the West south to New Mexico, Arizona, and California, and on Guadalupe Island. Winters south to highlands of Mexico and Guatemala.

Range of *C. c. calendula.*—As above, excluding the northwest humid coastal strip north of Washington (*grinnelli*) an undefined area of the Sierra Nevada Mountains, the Great Basin region and its northern Upper Sonoran extension (*cineraceus*), and Guadalupe Island (*obscurus*).

Distribution in California.—Theoretically, the common winter bird of the lower levels, especially of the west-central and southwestern portions.

Authorities.—Gambel (*Regulus calendula*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 115 (Calif.); *Anthony*, Auk, vol. xii., 1895, p. 181 (albino; San Diego); *Grinnell*, Condor, vol. vi., 1904, p. 25 (orig. desc.; type locality, Mt. Wilson, Los Angeles Co.); *Ray*, Condor, vol. xii., 1910, p. 130, fig. (desc. and photo of nest; Sierra Nevada); *Grinnell*, Univ. Calif. Chronicle, Oct., 1921, p. 394 (manner of seeking food).

No. 156a Ashy Kinglet

A. O. U. No. 749, part. **Corthylio calendula cineraceus** Grinnell.

Synonym.—Western Ruby-crowned Kinglet.

Description.—Similar to *C. c. calendula*, but larger and much less olivaceous; the color tone of the foreparts ashy or grayish olive,—decided olive-green often not appearing above the middle of the back; probably also without increase of olivaceous in fall and winter.

Nesting.—*Nest:* A ball of moss, lichens, fine bark-strips, etc., bound together with cobwebs, and lashed to drooping twigs, beneath branch of conifer; lined with vegetable down, catkins, hair and feathers; and placed at moderate or considerable heights. *Eggs:* 5 to 9; dull white or pale buffy, faintly or sharply but finely speckled with reddish brown, chiefly about larger end. Av. of 25 California-taken eggs in the M. C. O. colls.: 14 x 10.5 (.55 x .415). *Season:* June; one brood (?).

Range of *C. c. cineraceus.*—Imperfectly defined. Probably occupies a west-central area in the United States which includes the Sierra Nevada and associated ranges, and the western portion and flanks of the intra-mountain trough, which extends well north into central British Columbia. There are few problems more fascinating or difficult than the distribution of the races of *Corthylio calendula*, and the key to a solution of this one lies in a study of the songs.

Distribution in California.—Common breeder in Boreal zone from the Warner and Siskiyou Mountains south along the central Sierras to about Long Meadow in Tulare County (Grinnell); also in the San Bernardino and San Jacinto Mountains. Common in winter at the lower levels, especially southerly and southeasterly.

No. 156b Sitka Kinglet

A. O. U. No. 749a. **Corthylio calendula grinnelli** Palmer.

Synonyms.—Alaskan Kinglet. Sitka Ruby-crowned Kinglet. Grinnell's Kinglet.

Description.—Like *C. c. calendula*, but of much darker coloration—a "saturated" form; also wing somewhat shorter, bill larger, etc. *Young birds*, especially, are much more heavily tinged with olivaceous above and with olive-buffy below. Av. measurements of males: wing 56.6 (2.23); tail 42.9 (1.69); bill 8.7 (.34); tarsus 18.1 (.72).

Recognition Marks.—A strikingly darker coloration than in *C. c. calendula.*

Nesting.—As preceding. Does not breed in California.

Range of *C. c. grinnelli.*—Pacific Coast district, breeding from British Columbia to head of Lynn Canal and Yukutat Bay, Alaska; south in winter to middle California.

Occurrence in California.—Fairly common winter resident in the Northwest humid coast strip south to Monterey; less common or casual south to Santa Barbara; also Redlands (Bishop).

Authorities.—**Grinnell,** Condor, vol. iii., 1901, p. 48 (San Mateo Co.; crit.); *ibid.*, Pac. Coast Avifauna, no. 3, 1902, p. 72 (status in Calif.); *ibid.*, no. 11, 1915, p. 168 (status in Calif.); *Bishop*, Condor, vol. vii., 1905, p. 143 (Redlands).

THE SIGHT of a Ruby-crowned Kinglet, no matter where, begets in one a feeling akin to reverence. It is too beautiful, too sudden for mere flesh and blood, and we know that we are getting a winged message from the Creative Infinite.

It seems only yesterday I saw him—Easter Day in old Ohio. The significant dawn was struggling with heaped-up clouds,—the incredulities and fears of the world's night; but now and again the invincible sun found some tiny rift and poured a flood of tender gold upon a favored

spot where stood some solitary tree or expectant sylvan company. Along the river bank all was still. There were no signs of spring, save for the modest springing violet and the pious buckeye, shaking its late-prisoned fronds to the morning air, and tardily setting in order its manifold array of Easter candles. The oak trees were gray and hushed, and the swamp elms held their peace until the fortunes of the morning should be decided. Suddenly from down the river path there came a tiny burst of angel music, the peerless song of the Ruby-crown. Pure, ethereal, without hint of earthly dross or sadness came those limpid welling notes, the sweetest and the gladdest ever sung—at least by those who have not suffered. It was not, indeed, the greeting of the earth to the risen Lord, but rather the annunciation of the glorious fact by heaven's own appointed herald.

Taken in Pasadena *Photo by Dickey*

WESTERN RUBY-CROWNED KINGLET

And on another yesterday, in old Santa Barbara, as I was jogging along behind the old mare (before the ruthless automobile was *de rigeur*) a Ruby-crowned Kinglet flashed down upon the road which had been recently sprinkled, and began nibbling daintily at some unguessable morsel of insect life which he had spied. Moreover, the little rajah let us pass him within three feet; and, believe me, the gleam of his resplendent jewel, authentic Burmese, from its mud setting smote a chord of wonder. The little king was not at all aware of his condescension, nor of the hazard of crown jewels, but it did affect one queerly to see such a ruby flung down by the roadside. Have a care, little Gemcrest! Some urchin sparrow will be coveting your splendor.

The Ruby-crowned Kinglet has something of the nervousness and vivacity of the typical wren. It moves restlessly from twig to twig, flirting its wings with a motion too quick for the eyes to follow, and frequently uttering a titter of alarm, *chit-tit* or *chit-it-it*. On occasions

of unusual excitement, as at the presence of an owl or a cat, the bird delivers what I call electric spark notes. *Chit it chit it chit it chit it chit it*, and so on *ad infinitum* in a sustained, vibrant series. If two birds become concerned over the same discovery, the Lilliputian bedlam which follows sounds like a six unit wireless transmitting station. During migrations the birds swarm through the tree tops like Warblers, but are often found singly or in small companies in thickets or open clusters of saplings.

Photo by the Author

AT TIMBER-LINE ON SHASTA

In such situations they exhibit more or less curiosity; and if one keeps reasonably still, he is almost sure to be inspected from a distance not to exceed four or five feet. It is here, too, that the males are found singing in spring. The bird often begins *sotto voce* with two or three high squeaks, as though trying to get the pitch down to the range of mortal ears before he gives his full voice. The core of the song is something like *tew, tew, tew, tew, titooreet', titooreet'*, the last phrases being given with a rising inflection, and with an accent of ravishing sweetness. The tones are so pure that they may readily be whistled by the human listener, and a

Taken in Washington *Photo by the Author*

RUBY'S BASKETFUL

musical contest provoked in which one is glad to come out second best.

After all, it is the song rather than the ruby which glorifies the Kinglet. Having heard only the preparatory spring song for years, it was a matter of great enlightenment to come upon the birds at home in the giant larches of northeastern Washington. Here these midgets sang not only incessantly but so loudly that they were easily the dominant vocal feature of the birdscape. It appears that the full-fledged breeding song is quite different from the delicate migratory carol. The preliminary notes are of much the same quality, but instead of accenting the final syllable of the *titooreet* phrase, and repeating this, the phrase is given only once, with a sort of tittering, tremolo effect, and the emphasis is thrown upon a series of strong, sharp terminal notes, four or five in number, and of a uniform character—the whole somewhat as follows: *tew tew tew tew titteretteretter reet, cheep' cheep' cheep' cheep'*. These emphatic notes are also rendered in a detached form at occasional intervals,

usually after the entire song has been rehearsed; and they are so loud at all times as to be heard at a distance of half a mile. One individual began his song with an elaborate preliminary run of high-pitched whining notes of a fineness almost beyond human cognizance; then effected a descent by a *kititew* note to the *tew tew tew* series. In this case, also, the emphatic closing notes had a distinct double character, as *chee'py, chee'py, chee'py.*

Having retained in the foregoing paragraph the present tense, indicative of customary or established action, the author is prepared to retract, most humbly,—the assumed generalization. Generalizations are always dangerous. Disbelieve them, or treat them cavalierly, if you would learn the lore of nature. The Kinglets of the Pend d'Oreille did sing as above recited; but to my no less astonishment I have never heard the stentorous *cheep* notes in California—neither in the San Jacintos nor the Warners nor on Shasta, nor in the Mammoth country, where I know them best. On Mt. Shasta, particularly, I noted the invariable

Taken in Idaho *Photo by H. J. Rust*

ANOTHER BASKETFUL

absence of the concluding notes (call them *shouts* rather). One performer, followed by the hour, said, *tew tew tew titooreét titooreét titooreét;* and the only variations observable in this example were preliminary

squeakings, sudden cessations, and indefinite repetitions of the main phrase—as high as seven, I believe. The birds of the Mammoth section, in southern Mono County east of the Sierras, have, among others, a localized strain which scarcely deserves the name of song at all, so prosaic and almost repulsive is it,—*sheb'le sheb'le shéble shep* or *sheb'le, sheb'le, sheb'le, pootsiweek*. These less gifted singers, however, seem to have no difficulty in securing mates, and, indeed, I am not sure that my poor opinion of their song is not subtly connected with the fact that one of their number, the most brazen, shouted at us derisively for hours, keeping well to a clump of trees which we morally *knew* contained a nest—the while an icy breeze from off the Mammoth Crests numbed first our fingers, then our feet, and lastly our courage. The same bird started to shout *sheb'le sheb'le*—at us from the same grove when we returned two years later; but we hurried past, muttering unprintable things. Whence, I conclude that Grinnell's claim of a resident race, *cineraceus*, in California, is a valid one, and that we have much to learn of the *California* Ruby-crowned Kinglet.

Like the Golden-Crowns, the Rubies weave a wonderful basket, which they swing from the end of a fir bough, or snuggle under the protecting tip. It is composed externally of whatever moss the locality offers in greatest abundance. This may contrast sharply in color with the surrounding foliage but, even so, it will be so dextrously concealed that none but the shrewdest eye may suspect its presence. Because of this and because of the wayward actions of the owners, the quest of the Ruby-crown's nest is one of the most fascinating of human pursuits. I have spent many hours at it and up to the summer of 1919 I had found—just two. In the first instance I caught the male pausing momentarily to feed his mate in a theretofore unsuspected thickening of a fir branch 30 feet up; and in the second I heard the male singing persistently in the home tree. In either case I generalized promptly (you have to in practical life), but the rules evolved were only two of a dozen that have to be learned for successful nesting.

It is not, therefore, all roses hunting Ruby-crowns' nests. The more determined you are to succeed, the more baffling seem to be the difficulties encountered. For an atom only as big as your thumb, the Ruby-crowned Kinglet is singularly sagacious. He has foresight and hindsight, and often enough, apparently, insight. He has his suspicions, at least, and when you hear the preparatory notes *tew tew tew* or *teer teer teer* continued indefinitely without sliding into the song proper, you may know that the royal midget is on guard. And if he does sing almost incessantly in the tree tops, his song circuit is a wide one, so that you

Taken on Mt. Shasta looking west *Photo by the Author*

WHAT THE RUBY-CROWNED KINGLET SEES

can seldom tell in which tree he is keeping a paid engagement. Well, who wants to bother the little fellows, anyhow!

A Sabbath spent on Shasta! apotheosis of rest! ultimate of soul's desire!—save Heaven. Best of all, the Ruby-crowned Kinglet sings! It is the Ruby-crown who captivates the imagination. Tireless he shouts from the tree-tops, and though charmed to the full with the rapture of the bird's shouting, one still wonders why he sings. For many moon cycles he has been a bachelor, a mere unit in the winter throng, careless of aught but himself and his gnawing belly. Spring roused him to thought of mating. The urge of hot blood led him to notice, to pursue and capture, to mate and then to celebrate in an ever-recurring note of ecstasy. But now? Now his mate sits demurely upon the nest. Love's favors are past, and there remains for him, what? Remains loyalty! Devotion! That swerveless passion of love which is above the heat of the blood and the expectation of favors. The singer—surely he knows not why—still shouts his joy from tree-top to tree-top, and all that his mate may be comforted in her long vigil. The bird rises above himself, and is, for a season, of that altruistic fellowship of which God is the founder, and we humans but unworthy members. For a season! Alas! there is the strange blighting pity of it. Summer ends, the necessity is over. Nature's subtle purposes have been accomplished, and the birds forget—are to each other henceforth as though they had never been.

Almost our singer in his ecstasy has seemed to grasp the reality of soul-life and to demand entrance into the fellowship of the immortals. And then, even while we are moved to call him 'brother,' the bird forgets—

becomes again a mere animated atom, a craving bundle of selfishness, the very symbol of inconstancy.

Wherefore, O Bird, I take your protestations *cum grano salis*. You are not you, *ipse cognitus*, you are only a prophecy, an expression of a Greater, who is for a time moved to express a high purpose through a bit of clay, and will presently withdraw himself again. Him I hear, and rejoice. But you? Shall I respect you in very sooth, Birdikins? Nay, not with my soul. My ear, indeed, is charmed. My eye has ceased not to mark with delight your very dainty motions. Imagination has been purified and aspiration stimulated. But—but—not with my soul. You—you have no soul. You are not yourself. You have—you are no self. For a Self were by very definition immortal. And I love only the *immortals*. Farewell! poor—dear—*bird*.

No. 157

Western Gnatcatcher

A. O. U. No. 751a. **Polioptila cærulea obscura** Ridgway.

Synonym.—Western Blue-gray Gnatcatcher.

Description.—*Adult male:* A U-shaped mark, involving extreme forehead and superciliaries, black; a narrow eye-ring white; pileum deep blue-gray (deep Payne's gray); cervix and sides of head, including lores, back, scapulars, and rump, light blue-gray (clear Payne's gray), with admixture of neutral gray; wings plain gray, the coverts and edgings sometimes tinged with bluish, the remiges fuscous; tail and its upper coverts black, the lateral pair of rectrices white on the outer web, except basally, and on terminal half of inner web, its shaft black throughout; the succeeding pair white on terminal half of outer web and terminal quarter of inner; the third pair tipped only with white; underparts dull white, with more or less bluish gray shading on sides of neck and sides. Bill and feet black; iris brown. *Adult female:* Like male, but without black on head; pileum like back—dull bluish gray, intermingled with brownish gray. *Immature birds* are much like adult females, but have conspicuous edging of pale gray or white on the outer web of the tertials. This feature is retained by the male for a season after the acquisition of the U-shaped frontal mark. Length about 114.3 (4.50); wing and tail 50 (1.97); bill 9-11 (.35-.43); tarsus 17.4 (.685).

Recognition Marks.—Pygmy size; blue-gray coloration with black-and-white tail; black of head much restricted, as compared with *P. plumbea;* also white of lateral tail-feathers much more extensive, and wings more nearly uniform gray than *plumbea;* lighter, larger, and more purely white below than *P. californica*, from which it is further definitely distinguished by presence of white in tail.

Nesting.—*Nest:* A deep cup of felted vegetable fibers, lined or not with plant-down and feathers, bound with cobwebs, and ornamented or not with lichens; placed

variously at moderate heights in shrub or tree; depth, over all, 3 inches; inside 1½ to 1¾ nches; width, over all, 2¼ to 2¾ inches inside; at brim 1¼-1½ inches. *Eggs:* 4 or 5; palest niagara green, pale "bluish" gray, or bluish white, sharply, heavily, and almost uniformly spotted with reddish brown (cameo-brown to burnt umber). Av. of 22 eggs in M. C. O. colls.: 14.2 x 10.9 (.56 x .43). *Season:* May–June; one or two broods.

Range of *Polioptila cærulea.*—Mexico and southern United States, north in the central eastern states to southern Wisconsin and Michigan; southern Ontario.

Range of *P. c. obscura.*—Western United States and Mexico. Breeds from Shasta County, California, southern Nevada, southern Utah, and Colorado, south to Guanajuato and the Cape region of Lower California, and east to the Pecos River, Texas. Winters from southern California and southern Arizona south to Puebla and Cape San Lucas.

Distribution in California.—Resident in the Upper and Lower Sonoran zones of the San Diegan district (including Catalina and Santa Cruz Islands) and along the valleys of the inner coast ranges north to Paicines in San Benito County; summer resident along the western skirts of the Sierras and along the inner coast ranges north of San Francisco Bay to Shasta County (Baird, Townsend); Begum, Tehama County, July 4, 1916, author); casually to Yreka (J. G. Cooper); also along the desert ranges southeast of the southern Sierras north to the White Mountains (Nelson, Fisher); and on the east slopes of the Sierras north to Independence Creek (Stephens, Fisher). Common in winter in the southeastern section of State, including deserts and Colorado River valley.

Authorities.—Gambel (*Culicivora cærulia*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1847, p. 156 (upper Calif.); *Chamberlin*, Condor, vol. iii., 1901, p. 33, figs. (life hist.; nest and eggs; habits; drawings of nests); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 84 (food); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, 107 (San Joaquin Valley; habits).

PURSUIT of the Gnatcatchers is not only bad form but bad business, if your business happens to be learning all you can about the ways of birds. Let the birds pursue you, instead. How this is likely to come about two note-book entries will suggest:

Shandon, May 12, 1912: Tsuei tsee—tsip tsee—bizzit—wee, tsee, dzee—dzeer gueick—fluttering down like an autumn leaf came my Gnatcatcher, chattering, scolding, or singing happily at every step—for his mood changes twice with every breath. I knew he would come all the way down, for he had spied a curious looking brown hulk in the grass and must needs obtain specific news for the Polioptilian Hourly Reflector *—dzuei dzeel—chut chut—dzeer dut dut*—"Why! It's just a man in khaki!" So he flutters, unlike the leaf, upward, with his tail pointing by turns in $3\pi r^2$ directions. "Bye, bye, you animated atom of mortality! To think that Life comprehends you and me *and* the hippopotamus!"

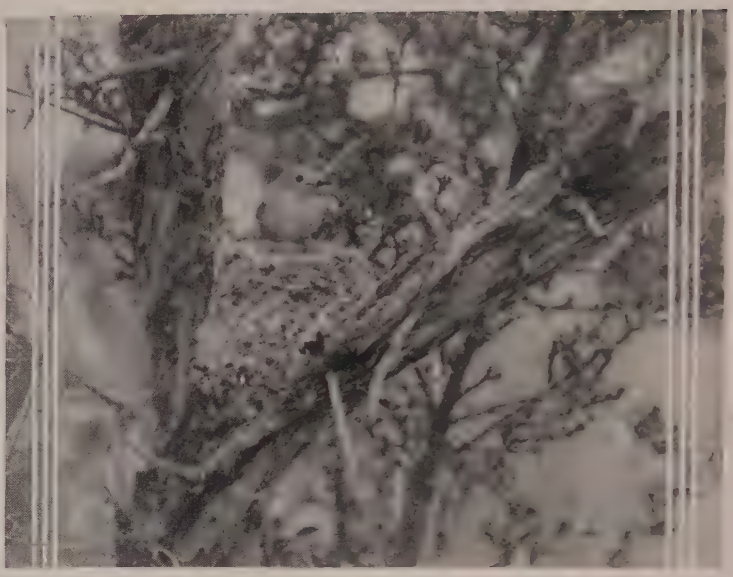
Santa Barbara, Sept. 11, 1915: When the woodland exquisite sighted me sitting cross-legged on the edge of a dwarf willow cover, he was moved with an elfin curiosity and flitted toward me, bough by bough, until he was within three feet of my face. On such occasion one can

only pray to be taken for a kindly cow and not for a human, the dread oppressor of the wild. The lithe, trim figure swayed and teetered and flittered and posed till my heart overflowed with joy; and all the while he kept up a happy little chatter which was music if not song. The "*biz*" notes came only as gold beads interspersed between the parts, and when birdikins was through inspection he said *daezz*, awhile, slowly and solemnly. If I could worship anything mortal it would be in such a form.

WESTERN GNATCATCHERS

This trim, active little figure is oftenest found in the half-open brush-patches which flank arid hillsides, in the sage proper (meaning, this time, *Salvia* and not *Artemisia*), or about the scattering oaks of Upper Sonoran foothills. His is, without question, the blithest disposition which the chaparral association has evolved; and his busy, friendly ways have endeared him to every bird-lover. Seen oftenest, perhaps, in little family troupes, a visitation of Gnatcatchers may well be deemed a happy event, not alone for the cheery animation of movement and comment which it displays, but because it is a visitation of expert husbandmen, practical entomologists, bent upon searching out and destroying every nit or aphis or tiny grub which lurks about the foliage of desert plant or garden shrub. I have seen one stow away

aphides at the rate of 150 per minute, never stopping until the entire colony was cleaned out; and then go right on talking and searching as if such a windfall was an every minute event. The value of the untiring services performed in our gardens and orchards by these unremunerated fairies



Taken in San Bernardino County *Photo by Wright M. Pierce*

WESTERN GNATCATCHER APPROACHING NEST

Taken in Monterey County *Photo by the Author*

GNATCATCHER COUNTRY

and their compeers is simply beyond calculation. Recognize them we can and cherish them we can, but we can no more requite them nor discharge our obligations to them than we can pay for sunshine and rain, or reward the sea for its revivifying breath.

We are apt to think of these roamers of the sage as leading a sort of haphazard life at all but nesting time, but a little attention will show a method and timeliness in their movements. Certain brush-patches are purged daily for a season, probably for so long a time as a certain distinctive moth is depositing its eggs in that section. Again it is a tiny white grub which is attacking the pepper trees. As long as the supply lasts the Gnatcatcher will appear daily and work at capacity. What more could we ask?

Taken in San Bernardino County *Photo by Pierce*

A COMPETENT INSPECTOR

It is only at nesting time, however, that we can seem to get the Gnatcatcher definitely anchored. Even at that, a half-built nest is likely to be torn down piecemeal and set up in a new location more to the builder's fancy. At such a time both birds work with unflagging energy and prolong their labors into the heated hours each day. It is a rebuke to a sluggard to see one dash up to a tree-fork and whirl about in the nest that is to be. Cobwebs, to us invisible, are laid off at a furious rate, and the structure grows as if by magic. As the walls of the nest rise to a height often much greater than its breadth, they "toe in" at the top—presumably that the babies may not be tempted to climb out of the fairy well too soon. The greatest care is displayed in the external decoration of the nest, that it may exactly harmonize in color with its surroundings. If the site is a lichen-covered oak, the walls are draped with lichens until they appear as part and parcel with the tree. If a dead limb is chosen, grayish bark fibers are bound on with cobwebs, until the whole

Taken in Monterey County

Photo by the Author

"FIRM PLANTED IN HER NEST"

nest is authentically "dead." In a burned-over section of the Sierras one pair of birds decorated dutifully with bits of charred bark.[1]

Some immediate protection from the sun is a necessity for most of our tree-nesting birds; hence, a bunch of leaves will almost invariably be discovered, whether near or remote, which shades the Gnatcatcher's nest at the critical hour. The western bird does not, however, like its eastern representative, seek shelter beneath some protecting limb or overshadowing trunk.

The temptation to look in upon some particular scene, of the score whose images crowd memory's portal, is irresistible. Shall it be of the birds found near "The Pinnacles" in San Benito County? The date is May 17, 1916: We heard "business" of gnatcatchers; and though we knew there were two, our eye followed only the more active one while he traversed the tree in amiable, leisurely fashion, and then made off unconcernedly to another tree. I was about to suggest our moving on, when Bert said, "But what became of the other bird?" Sure enough, there *were* two of them. The other bird I spied, firm planted in her nest on a horizontal limb of the oak about 10 feet up. We approached from above through the tree to within a foot or two, when the bird flushed, and we saw five eggs, which we took to be rather advanced in incubation. At least that is the solace we gave ourselves. As matter of fact, when I returned with the Graflex to photograph, the inevitable happened, and I lost my heart to this brace of fairies. If one has a "scientific" duty to perform in case of this dainty tribe, he has to work quickly. The

[1] "Some Architectural Traits of the Western Gnatcatcher," by Corydon Chamberlain: "Condor," Vol. III March, 1901, p. 35.

female followed every new movement whether of arm, branch, or camera, with alert glances over the side of the nest. And for this purpose she had to rise on tiptoe, or crane her neck most ridiculously. But between times she settled resolutely to her task, insomuch that her head entirely disappeared and only the tail stuck straight up like a dear little dipper handle. This bolstering of good resolution and ostentatious settling to eggs in the presence of danger is a feature of irresistible charm to me. It is so absolutely appealing to see a midget whom you could crush between thumb and finger, and who trembles visibly before you, yet shakes herself together and dares to die rather than to shirk her immemorial charge.

I took a number of snaps of my lady Graymits at 2½ feet, but she fled when an audacious finger pressed against her beak. Then the male bird approached and scouted. And if there had been any lingering resentment on my part of my lady's eventual distrust, or any secret thought of pillage, the genial optimism of this feathered atom completely disarmed all hostility. He came again and again within two feet of my face and he said *bizz bizz* so amiably that I longed to be taken into full confidence. "What ho, good Sir Gnatcatcher, do you not need a kindly-disposed giant to fetch and carry for you?"

A giant on guard at the nest might not be amiss, either, for fully half the Gnatcatchers' nests are robbed or torn up by Jays (chiefly *Aphelocoma californica*). Wherefore the birds must needs nest twice in a season, and in individual cases, no doubt, three or four times. The raising of a Gnatcatcher family is no sinecure, even when the Jays do happen to leave them alone. Mrs. Myers, who has left us a charming account[1] of daily events in Gnatcatcher nurseries, tells how one pair fed its brood at the rate of 608 times a day; and another whose babies were a little older, at the rate of 840 times. Think of having to serve 840 meals in a day! And they are *meals*, too, for the birds do not stop in their questing forays until they have secured a beakful, and this may comprise a dozen or fifteen items.

No. 158

Plumbeous Gnatcatcher

A. O. U. No. 752. **Polioptila plumbea** (Baird).

Description.—*Adult male:* Similar to *P. cærulea obscura*, but entire top of head, including lore (or not) and nearly surrounding eye, glossy black; a conspicuous white

[1] "Nesting Ways of the Western Gnatcatcher," by Harriet Williams Myers, The Condor, Vol. IX., March, 1901, pp. 48-51.

eye-ring, usually interrupted behind, thus thrown into relief; wings rather more extensively overlaid with blue-gray; the white of outer tail-feathers much reduced,—nearly confined to outer web and tip of outermost pair, the succeeding pair narrow-edged on outer web and broadly tipped, the next pair very narrowly so edged and tipped with white. *Adult female:* Like male, but without black on head; pileum plain dull bluish gray (deep Payne's gray), contrasting with back, which is more or less overlaid with brownish. *Immatures* are much like adult females, but with more or less grayish edging on outer webs of tertials, as in *P. c. obscura.* Length (almost exactly that of *P. c. obscura*) about 114.3 (4.50); wing 46 (1.18); tail 50 (1.97); bill 9 (.35); tarsus 17.4 (.685).

Recognition Marks.—Pygmy size; blue-gray with black-and-white coloration; black crown of male distinguishes from *P. c. obscura;* larger, lighter, and more purely white below, as compared with *P. californica,* from which it is further distinguished by notable increase of white in tail.

Nesting.—*Nest:* A deep cup of fine gray vegetable fibers, bound with cobwebs and lined with plant-down, or variously; placed in bush or weed, or low in tree, and usually settled among supporting twigs or upright branch. *Eggs:* 4 or 5; much as in preceding species, but perhaps more sparingly spotted. Av. of 20 eggs in M. C. O. coll.: 13.5 x 10.4 (.53 x .41). *Season:* April and June; two broods.

General Range.—The Lower Sonoran zone of the southwestern United States, narrowly defined, northern Mexico, and Lower California.

Distribution in California.—Common resident of the Colorado Desert and the valley of the Colorado River; less common on the Mohave and associated deserts, as far north as Armagosa River, in eastern Inyo County.

Authorities.—Heermann (*Culicivora atricapilla*), Jour. Acad. Nat. Sci. Phila., vol. ii., 1853, p. 262, part (Ft. Yuma); *ibid.*, Rep. Pac. R. R. Surv., vol. x., pt. iv., 1859, p. 39 (habits, notes); *Brewster*, Bull. Nutt. Orn. Club, vol. vi., 1881, p. 102 (crit.; syn.); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 214 (Colorado Valley; occurrence; nest); *ibid.*, Pac. Coast Avifauna, no. 11, 1915, p. 168 (status in Calif.).

"*POTHOLES:* Feb. 11, 1913:

Chee cheé to yăăăă; chee chee to yăăăă—It was thus that this absurd little dab of blue-gray dared to mock the birdman's dignity from the dense cover of an atriplex near the old Indian rancheria. I hurried round the bush to dislodge His Sauciness, but he retreated as rapidly, keeping the giant weed between us and jeering volubly the while. Finally, by making a feint in one direction and doubling in the other, I startled the urchin, so that he first stumbled midair and then dashed into another bush. Poor little wisp! He is a 'specimen' now, very scientific, but his saucy little spirit has fled."

The case is really a pretty serious one, though, and a good deal of gun work will be necessary before we shall know exactly where *plumbea* belongs, and by how much it differs from *cærulea* (*obscura*) and *californica.* Except as regards adult males, the birds are almost indistinguishable to eye. While the notes of *plumbea* are weaker and softer than those of *cærulea,* it takes a good ear backed by no little experience to distinguish them infallibly. The ranges of *plumbea* and *californica* overlap

Taken near Palm Springs

Photo by the Author

MAJOR BROOKS CONSIDERS THE PROSPECT
A TYPICAL DESERT RANGE OF THE PLUMBEOUS GNATCATCHER

only along the western border of the former; but the *plumbean* territory is extensively invaded by *cærulea* in winter, notably along the banks of the lower Colorado River. And while the breeding ranges of *plumbea* and *cærulea* are faunally distinct, there is a little overlapping or interdigitation of alternating canyons and ridges in certain desert ranges.

Stephens (MS) says, "Rather common residents of the Colorado Valley, Colorado Desert, and parts of the Mojave Desert. The seasonal distribution of the Plumbeous Gnatcatchers has not been worked out. I surmise, however, that in summer they frequent valleys and comparatively level plains, and that in winter the bulk of the species goes to the edges of the hills and the mouths of the canyons in the foothills—the short migration being as frequently north as south." Grinnell says[1] of their occurrence in the Colorado Valley: "The desert wash association with its catclaw, palo verde, ironwood, and smaller woody and stiff-twigged plants, was the preferred habitat of this bird, though it occurred also in the atriplex and mesquite belts along the river, even straying occasionally into the arrowweeds and willows." I found it common in the creosote belt below Palm Springs in January, 1913, and again in the atriplex wastes adjacent to the Salton Sea. In Arizona,

[1] Mammals and Birds of the Colorado Valley, p. 214.

while it is preëminently a bird of the mesas, it follows the foothill slopes up into the oak belt, where its nests receive attention from the Arizona Jay as well as from the Dwarf Cowbird. In the Patagonia Range I found an egg of the latter in a dainty nest placed eight feet up near the top of a scrub oak, and the outraged householder, who had evidently punctured the egg, mounting guard over his blighted hopes.

The nest, according to the excellent authority of Mr. Frank C.

Taken at "Fig-tree John's" Spring, Colorado Desert *Photo by Donald R. Dickey*

PLUMBEOUS GNATCATCHER, FEMALE, AT NEST

Willard, is placed at very moderate heights, usually about five feet, near the top of a bush. Both birds assist in nest building, though the female has the last word (*as usual*) as to how the furniture shall be disposed. The male is a cheerful, confiding soul, and during his shift at the brooding will allow all sorts of photographic liberties. If the eggs are to be inspected, only a finger will dislodge him. The female, on the other hand, suspects all bird-men and flees inspection, carrying her annoyance, it is said, to the point of desertion, if the eggs be fresh.

The Plumbeous Gnatcatchers have no such reputation as architects

as have their cousins *cærulea*, their nests being simple, often of grayish bark-strips and plant-fibers, undecorated,—most like those of the Eastern Redstart, Dr. Brewster says.

No. 159

Black-tailed Gnatcatcher

A. O. U. No. 753. **Polioptila californica** Brewster.

Description.—*Adult male:* Somewhat similar to *P. plumbea*, but smaller and darker, especially below, with further reduction or absence of white in tail; top of head and nape, including lores and upper auriculars, glossy black; the white eye-ring reduced, or confined to lower lid, or wanting; wings dusky, the coverts and outer webs of remiges lightly (or scarcely) skirted with bluish gray; tail black, the outermost pair of rectrices very narrowly edged (on outer web only) and tipped with white, the succeeding pairs very narrowly or not at all so marked; lower breast and belly dull pale bluish gray, or dull whitish; the remaining underparts heavily tinged with dull bluish gray, or the flanks with brownish gray. *Adult female:* Like male, but without black on head; white eye-ring distinct; pileum dull plumbeous, not abruptly contrasting with back; back, scapulars, and posterior underparts heavily washed with brownish; tail brownish black. *Immature males* are like their mothers, but are clearer blue-gray anteriorly, and less extensively washed with brownish posteriorly. *Immature females* accentuate the brownish. Length about 108 (4.25); wing 46 (1.81); tail 49.6 (1.95); bill 9.1 (.36); tarsus 17.5 (.69).

Recognition Marks.—Pygmy size; dull bluish gray and brownish coloration; sordid gray underparts; black cap of male distinguishes from the Western Gnatcatcher; reduction of white in tail and sordid underparts from both *P. cærulea obscura* and *P. plumbea*.

Nesting.—*Nest* and *Eggs* as in preceding species. Av. size of eggs 14 x 11.2 (.55 x .44). *Season:* April–June; one or two broods.

General Range.—Southwestern California and Lower California.

Distribution in California.—"Common resident locally of the Sonoran zone in the San Diegan district, from the Mexican line northwest to the lower Santa Clara Valley in southern Ventura County (Evermann), and even to Ventura. Occurs only west of the desert divide, except at San Gorgonio Pass, through which the range of the species extends casually in winter desertwards as far as Palm Springs" (Grinnell).

Authorities.—**Heermann** (*Culicivora atricapilla*), Jour. Acad. Nat. Sci. Phila., vol. ii., 1853, p. 262, part (San Diego); *Brewster*, Bull. Nutt. Orn. Club, vol. vi., 1881, p. 103 (orig. desc.; type locality, Riverside); *Swarth*, Condor, vol. iv., 1902, p. 86 (plumage changes); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 106 (s. Calif.; distr., nesting dates, etc.); *Woods*, Condor, vol. xxiii., 1921, p. 173, figs. (nesting habits; photos of adults, young, nests, habitat).

WHILE skirting a bit of cactus at the base of a mountain back of San Diego, I made the brief acquaintance of this most engaging sprite.

The bird was, of course, trying to say *buz bee* after the manner of his kind; but it was with an entirely new accent. He tried to mew and buzz at the same time, but the mew had it. The sound produced was absurdly like that of a young kitten who should be plaintively demanding milk while spitting at the terrier. The Gnatcatcher did some other vocal stunts too, interspersing the pepper-box notes of the Cassin Vireo with a cat-call faintly suggestive of the roguish Chat, then mew-spitting again. As I stood motionless, the bird moved about demurely through a neighboring sage-bush, and though it eyed me intently, the incessant stream of vocables which it kept up seemed to have no particular bearing on the situation. There was an impersonality, a nonchalance, about the whole performance, which left one doubting whether, after all, these extraordinary and explicit noises might be coming from such a sedate source.

And that is, honestly, about all that the writer knows at first hand of the Black-tailed Gnatcatcher. Laurels await the conscientious biographer who will give us a full flesh-and-blood account of this elusive bird. Certainly the meager citations from early ornithological literature are principally concerned with matters of names and localities and distinguishing marks, of little interest to us and none whatever to the birds. Yet it may be well to enumerate the contributing causes of this neglect or oversight or manifest failure. To begin with, the birds themselves are rather scarce and irregularly distributed. *Californica* is hardly a bird of the ceanothus, certainly not of the oaks, but keeps rather to the chamisal, or to shorter, more scattered growths of the desert. Even where it is thoroughly at home *californica* is much less in evidence than is *obscura* further north.

Working with a difficult genus, *Polioptila*, science was slow to recognize the distinctness of the species *californica*, having buried it for years under the name *melanura*, which proved to be synonymous with *plumbea*. It was *melanura*, however (Greek for black-tail), which gave to us the very unfortunate "common" name which now handicaps the fame of *californica*. Black-tailed Gnatcatcher! Why, *all* Gnatcatchers (there are about 30 of them) have black tails. As well speak of a Black Blackbird. The name Black-crowned Gnatcatcher might serve us well enough in distinguishing from the Western (*P. cærulea obscura*), which has only a narrow V-shaped mark of black about the forehead and superciliaries. But then all male Gnatcatchers have more or less black about the head, and many of them are black-capped. To be at all consistent, we shall have to fall back upon a place- or circumstance-name. "California" is not suitable, because *obscura* is much more widely distributed through the State. Southern California is too cumbersome, Riverside (the place of original description) too local. Really, I think we ought to call it

BLACK-TAILED GNATCATCHERS

Brewster's Gnatcatcher, after its gifted and very deserving describer.

Mr. Robert S. Woods, who has studied this species with some particularity near Azusa, finds[1] that the birds are very local in their range, and a given pair is usually confined to a space of two or three acres. They seem not to care for water at all, either for drinking or bathing, being therefore very literally dependent upon "bug juice." Nesting is the absorbing business of springtime, and no sooner is one brood successfully reared than another is attempted. The male bird takes the lead in nest construction, and performs his fair share of the duties of incubation as well. Insect food is gleaned assiduously from the surface of the desert plants, and only rarely does the bird attempt such excursions into the air as would justify the name Gnatcatcher. The black cap of the male bird is featured in spring and summer only. About the middle of February black patches appear upon the crown and quickly spread over the entire top of the head. The autumnal change takes place much more slowly, and consists of a gradual obscuring and replacing of glossy black by gray. The first signs of gray can be detected by the middle of July, but it requires approximately six weeks for all traces of the darker color, with the exception of a permanent blackish streak over the eye, to disappear.

No. 160

Wren-Tit

A. O. U. No. 742 and No. 742c. **Chamæa fasciata fasciata** (Gambel).

Synonym.—Intermediate Wren-Tit.

Description.—*Adult in spring and summer:* Plumage loose in texture, especially below; head and neck, above and on sides, dark grayish brown or seal-brown, varied by faintly darker centers; remaining upperparts lighter, more ochrey-brown (mummy-brown) (flight-feathers and tail a little darker and grayer), shading upon sides to light wood-brown of under plumage; the breast vaguely streaked with darker; middle of belly and chin lighter, more buffy. Bill and feet brownish horn; iris whitish. *Adult in fall and winter:* Plumage softer and color more blended. *Young birds* are duller, with plumage still looser in texture, and color of head shading into that of back. Length about 153.7 (6.50); wing 60 (2.36); tail 80 (3.15); bill 11.5 (.45); tarsus 25.4 (1.00).

Remarks.—While there is a pretty steady deepening of color from south to north (along the coast, but not necessarily in the interior), throughout the range of this species, it seems unwise to try to recognize four divisions, as Ridgway has done. The characters separating *C. f. fasciata* and *C. f. rufula* Ridgway are neither well marked nor geographically constant, and are, therefore, merged herewith under the name *fasciata*. It should be remembered, however, that an arbitrary subdivision could be established anywhere between *henshawi* and *fasciata* in the southern coast ranges, or between *fasciata* and *phæa* in Mendocino and Humboldt counties.

[1] Condor, Vol. XXIII., Nov., 1921, p. 173.

Recognition Marks.—Sparrow size; brown coloration with absence of distinctive marks; soft fluffy plumage and consequent dishevelled appearance; long tail, held at any angle; white eyes; loud musical notes, especially a staccato series in monotone accelerando. A shy and ubiquitous bird of the chaparral, more often heard than seen.

Nesting.—See next form.

Range of *Chamæa fasciata.*—Pacific Coast district from Oregon south to northern Lower California.

Range of *C. f. fasciata.*—Wholly contained within California. The humid coastal strip of California from Mendocino County south to Monterey, east to hills of Berkeley and Mt. Hamilton range.

Authorities.—Gambel (*Parus fasciatus*), Proc. Acad. Nat. Sci. Phila., vol. ii., 1845, p. 265 (orig. desc.; Calif); *Shufeldt*, Jour. of Morph., vol. iii., no. 3, p. 475 (osteology; relationships); *Lucas*, Proc. U. S. Nat. Mus., vol. xiii., 1890, p. 337 (osteology; relationships); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 30, 1907, p. 71 (food); *Grinnell*, Condor, vol. xv., 1913, p. 178 (call-notes and mannerisms); *Newberry*, Condor, vol. xviii., 1916, p. 65, figs. (life hist.; desc. nest and feeding of young; photos).

No. 160a Southern Wren-Tit

A. O. U. No. 742a. **Chamæa fasciata henshawi** Ridgway.

Synonym.—Pallid Wren-Tit.

Description.—Like *C. f. fasciata*, but paler throughout; the division of colors between back and pileum less distinct; back, etc., dull sepia or olive-brown; the head hair-brown to deep mouse-gray; the underparts vinaceous buff.

Nesting.—*Nest:* A closely woven cup of fine grasses, frayed weed-bark, and the like, lined with horsehair; placed one to four feet up in thickets; measures 3½ to 4 wide by 3 to 3½ deep outside; 2¼ wide by 2 deep inside. *Eggs:* 3 to 5, usually 4; pale niagara green, unmarked. Av. of 23 eggs in the M. C. O. coll.: 17.8 x 13.7 (.70 x .54). *Season:* March–June; two broods.

Range of *C. f. henshawi.*—Chiefly contained within California. Common resident of the Upper Sonoran zone, from Monterey south to northern Lower California, east to the desert divides and north along the western foothills of the Sierra Nevada to Shasta County. Also interiorly along the inner coast ranges from Siskiyou County to stations in Mendocino and Solano counties.

Authorities.—Heermann (*Chamaea fasciata*), Jour. Acad. Nat. Sci. Phila., ii., 1853, p. 264 (Calif.); *Ridgway*, Proc. U. S. Nat. Mus., vol. v., 1882, p. 13 (orig. desc.; type locality, Walker's Basin, Kern Co.); *Bowles*, Condor, vol. xiii., 1911, p. 30 (Santa Barbara; desc. nest and eggs, song, habits).

No. 160b Northern Wren-Tit

A. O. U. No. 742b. **Chamæa fasciata phæa** Osgood.

Synonyms.—Oregon Wren-Tit. Dusky Wren-Tit (Ridgway). Coast Wren-Tit (A. O. U.).

Description.—Like *C. f. fasciata*, but darker; pileum deep warm sepia; sides of head and neck grayer,—deep grayish brown faintly streaked with whitish; back, rump, etc., bister or dark sepia; the sides dark reddish brown (between Rood's brown and vandyke brown); the underparts paling centrally to fawn-color; the streaks on chest, etc., broader, more diffuse, and more rufescent. Size of *fasciata.*

Range of *C. f. phæa.*—Resident in humid coastal strip from southern boundaries of Humboldt County north to the Columbia River.

Authorities.—Townsend (*Chamaea fasciata*), Proc. U. S. Nat. Mus., vol. x., 1887, p. 229 (Humboldt Bay; song); *Osgood*, Proc. Biol. Soc. Wash., vol. xiii., 1899, p. 42 (orig. desc.); *Fisher*, Condor, iv., 1902, p. 135 (Humboldt and Del Norte counties).

ALTHOUGH so modest of garb and mien, the Wren-Tit is in a sense the most distinctive bird of California. For in its one small anatomy *Chamæa* exhibits differences which seem to entitle it to family rank. The monotypic family so constituted, the *Chamæidæ*, enjoys the further distinction of being the only family peculiar to North America. Either the bird has been here a very long time, or it has dropped from the skies "most unexpected." In any case *chamæa* is the original "Native Son" of California. Familiar spirit of the chaparral and all lowland tangles, it is also one of the commonest of the birds of California. Within its very considerable associational range, it will take first place for uniformity of distribution, and will yield only to the Linnet in point of numbers.

Taken in Pasadena *From a photograph, Copyright 1914, by D. R. Dickey*

EXERCISE ON THE INCLINED BAR

Let us, then, repair to the chaparral forthwith and seek acquaintance with this member of California's first family. Ten to one, the bird heralds his presence in the all but impenetrable bush by a staccato song of flute-like notes—welling up from nowhere in particular, but audible for a quarter of a mile at least. Pursuit of the songster would only provoke retreat, and the Wren-Tit is a master scout in these trackless mazes. A better way is to creep in under cover a few feet from the trail, and to summon the bird by screeping. Presently one and then another will appear, for they almost invariably travel in pairs, moving quietly through the middle growths. As the

quest progresses the birds exchange confidences now and then in a low peep, or else give voice to suspicion in an absurd little series of low ratchety notes. But the birds in these circumstances rarely exhibit fear, and will venture up repeatedly within three or four feet. Even after they have correctly diagnosed your case, they will oftener than not potter about in friendly lazy fashion. One has ample opportunity to observe the "lax" plumage with diffuse or hair-like feather-tips, and these all fluffed out in comfortable, dowdy fashion. The tail, oftenest uptilted at an angle of forty or fifty degrees, is quite mobile, not, indeed, nervously twitching, but still compensating by bobs or side-long sweeps for every major motion of the body. Sometimes this member is carried half open, and we note its fan-like graduation, while in every short flight attempted the tail "pumps" vigorously. The bird is an adept climber, but never attempts compromising "stunts" as a Chickadee would. Indeed, all the Wren-Tit's movements are moderate and languid, and we should attribute to the bird a considerable dignity, were it not for the droll white iris which belies its claims. This "glass eye" gives to its owner a sort of impersonal cast, and we feel that we are dealing with a pixy in masquerade, rather than with a flesh-and-blood bird.

Taken in Pasadena
Photo by Dickey

EYEING THE CAMERA

While wedded to the chaparral, the Wren-Tit is no recluse. If half civilized connections are maintained by means of hedge or neglected fence-row or weed-grown hollow, the bird will pay dutiful visits to orchard or garden, and he will announce his or her presence—for both sexes sing indistinguishably—by no less dutiful sounding of the challenge notes. As an authentic mark of Californiity, therefore, the pleasant call of the Wren-Tit, whether near or remote, comes to be one of the most cherished features of country or suburban life in our State.

Occasional visits to orchard or garden need not be resented, either, on economic grounds; for while the Wren-Tit does indulge in fruit, it is chiefly wild fruit such as elderberries, coffee berries (*Rhamnus*), twin berries (*Lonicera interrupta*), etc. Its chief interest is in insect food, and

WREN-TIT

of that such species as do not require especial agility in capture,—spiders, caterpillars, ants, the smaller wasps taken at their nests, and, notably, the scale insects. Besides these, the bird has for a staple, available seven months in the year, the seeds of poison oak (*Rhus diversiloba*).

The bird, of course, is immune to the fancied injuries caused by this plant, and there is no denying that the Wren-Tit is an active agent in its dissemination. (The author happens, also, to be immune, but he will never forget the shriek of dismay with which a lady fled from a store in Berkeley upon learning that a modest boutonniere of autumn leaves carried by the birdman was poison oak! *Sic semper hysterics!*)

That relatively little is known of the nesting habits of the Wren-Tit is due to two causes: first, the boundless immensity of their nesting cover—the traditional needle in a hay stack presents a less discouraging outlook; and, second, the studied secrecy with which the nesting birds approach or leave or cling to their nests. Not even a sudden blow upon the nesting bush will startle the Wren-Tit into a noisy betrayal. If it quits the eggs at all, it will do so quietly by a deliberate movement, which is presently halted to await further developments. Even if quite sure of detection, or while the nest is under inspection, the bird will oftenest pause on the opposite side of the bush, either silently, or uttering a harsh, rasping note of protest. Both birds will join in the defense; and though the accusations are genteel, the white eye of the Wren-Tit knows how to be very stern. One observer, Mr. Wright M. Pierce, of Claremont, notes[1] how one bird on such an occasion dropped to the ground and feigned lameness, the familiar decoy ruse, accompanying its solicitous demonstration by "a hissing sound intermingled with sharp croaks."

Nests are placed at very moderate heights, two or three feet above the ground, in any sort of cover, provided only it is dense enough; though Mr. Mailliard records[2] one instance of the Wren-Tit's building twelve feet up in a live oak tree. The nest is a well-built cup of wrapped grasses and bark-strips, settled firmly upon a support of horizontal branches or clustering stems. The grasses chosen are invariably browned or grayed with age, and the bark is stripped from the stalks of last year's weeds. Cobwebs help to bind the exterior, and the lining is of horse-hair, if possibly obtainable. (One wonders how American birds ever managed before the advent of the horse.)

Eggs, from three to five in number, are deposited late in March or early in April in southern latitudes, in late April or early May further north. These, when fresh, are of an exquisite turquoise green color; but the green element soon fades, and cabinet specimens are pale nile blue. Incubation, participated in by both sexes, lasts 15 to 18 days, and the young occupy the nest sixteen or seventeen days longer. The children accompany their parents to slightly higher levels in late June or July, or else remain closely at home, according to the configuration of the country.

Though we have spoken explicitly of the appearance of the Wren-Tit, it is as a vocalist that the bird is best known. Indeed, it is safe to say that the bird is heard a thousand times to once it is seen. The "song cycle" of this species is, perhaps, less affected by or dependent on the

[1] The Condor, Vol. IX., Sept., 1907, p. 152.
[2] The Condor. Vol. IV., p. 95.

"breeding cycle," than in the case of any comparable species. There are fluctuations of vocality, due to weather conditions, moult, current distribution, etc.; but, in general, it may be said that Wren-Tits of both sexes sing throughout the year. Vocal utterance with birds is an expression of high spirits, and as for the Wren-Tit he (or she) is feeling pretty well, I thank you, most of the time. Wherefore, we nod significantly, and say "California!"

Taken in Pasadena *Photo by Donald R. Dickey*

PALLID WREN-TIT ON SALVIA

The analysis and classification of the Wren-Tit notes is a most fascinating pursuit for the bird student. Dr. Grinnell[1] has given us the best account of them to date, and I am indebted to his outline, although differing from him slightly. While no two observers will hear exactly the same cadences, nor attach the same importance to minor sounds, all will agree upon the startling originality and vigor of the Wren-Tit's major call. This consists of a series of staccato notes which may be whistled admirably, and which are of so pure a quality

[1] The Condor, Vol. XV., Sept. 1913, p. 179.

Taken near Santa Barbara *Photo by the Author*

THE WREN-TIT IS NO QUITTER

that defining consonants would be meaningless—*hóo—hóo—hóo—hóo hóo hóo hóo hóo hóo hóo.* The tempo is sharply accelerated after the three or four leisurely opening notes; but the concluding portion scarcely attains the speed of a trill. The effect, whether of antiphony or medley, produced by two or more singers seated on opposite sides of a brushy draw, is charming in the extreme.

A variant of this major call consists of an unmodified series of the same staccato notes without the accelerando, but the tempo of the whole is faster than the opening of the first series *hoo hoo hoo hoo*, etc., to a dozen or more.

A third series, also musical, seem intended for more domestic uses, since it is more restrained in volume and is delivered ofttimes in close proximity to fellows. After three or four preliminary notes the "mainspring" seems to break, and the whole works run down suddenly in a slurred trill, and with a slight loss of pitch, thus: *tic-tic-tic-tic trrrrr.*

Fourth, a faint single note of inquiry—oftenest passed between birds who are quietly investigating a would-be investigator.

Fifth, a faint low "chuck" of apprisal or reassurance exchanged between birds hunting together. This is also the note used by the parent bird in approaching her young.

Sixth, the ratchet and pawl, or wooden clicking notes delivered in contiguous succession of series, *dididididit, dididididit, dididididit.* This is a note of concern, a protest against an intruder, or an adverse report made by the investigating committee.

Seventh, notes of about the same quality as the last, uttered in unbroken series—evidently delivered under high stress of emotion, but the exciting cause oftenest non-human.

Eighth, a hissing *churr*, very difficult of description, which the bird utters only at close range in defense of her nest.

Besides these regular numbers there are individual variations galore, and special outcries which merit further study.

The problem of the derivation of *Chamæa* is one which challenges speculation. The taxonomic placing of the *Chamæidæ* has been the despair of American ornithologists ever since its discovery, and it owes its present position (*vide* A. O. U. Check-List), between the *Paridæ* and the *Sylviidæ*, to indolence or extremity rather than to inspiration. "Wren-Tit" may pass as a nickname, but the bird resembles neither a Wren nor a Titmouse, either in voice, appearance, or action. It is not vivacious or "nervous" like the Wren, and if it carries its tail loosely as does a Gnatcatcher, it is the only habit shared in common with the *Sylviidæ;* while as to the *Paridæ*, the Wren-Tit never indulges the upside-down

pranks which are part and parcel of Titmouse character. The testimony of the Wren-Tit's egg, moreover, is flatly against any such association. Its sheer greenness (niagara green) of color is not hinted at anywhere among the *Troglodytidæ*, *Sylviidæ*, or *Paridæ*, and the bird must plainly have derived elsewhere.

The surmise that the Wren-Tit is of remote Asiatic origin is probably a correct one. Somewhere among the *Timeliidæ*, that dump-heap of despairing taxonomists, will be found the nearest of kin to these long absent but most contented waifs. One almost dares to dream of some ancient shipwreck, a tree-top, wrested by flood, blown over from far Formosa, or a Chinese junk stranded at Monterey, but with all hands saved down to the occupants of a gilded bird-cage. A slender chance, to be sure, but in some such way even the islands of mid-ocean have been populated. The *Drepanidæ*, for example, now the dominant family of land birds on the Hawaiian Islands, are believed by some to have derived from American stock akin to the *Cæribidæ*. Be that as it may, California now boasts the only exclusive family of birds to be found in North America.

No. 161

American Pipit

A. O. U. No. 697. **Anthus spinoletta rubescens** (Tunstall).

Synonyms.—American Titlark. Brown Lark. Louisiana Pipit.

Description.—*Adult in spring:* Above soft and dark grayish brown with an olive shade; feathers of crown and back with darker centers; wings and tail dusky with paler edging, the pale tips of coverts forming two indistinct bars; outer pair of tail-feathers extensively white; next pair white-tipped; superciliary line, eye-ring, and underparts light grayish brown or light cinnamon buffy (sometimes chamois or honey-yellow)—the underparts streaked with dusky except on middle of throat, belly, and crissum, heavily on sides of throat and across breast, narrowly on lower breast and sides—or sometimes, in very old birds (?), nearly immaculate. *Winter plumage:* Above browner; below paler buffy; more broadly streaked on breast. Length 152.4-177.8 (6.00-7.00); wing 85.6 (3.37); tail 64.3 (2.53); bill 12 (.47); tarsus 21.7 (.85).

Recognition Marks.—Sparrow size; brown above; buffy or brownish with dusky spots below; best known by *tlip-yip* notes repeated when rising from ground or flying overhead.

Nesting.—Not known to breed in California. *Nest:* At high altitudes, a thick-walled structure of grasses and moss set into deep excavation in sloping hillside or in cranny of cliff. *Eggs:* 4-6, usually 5, so heavily speckled and spotted with reddish or dark brown as almost entirely to obscure the whitish ground-color. Often, except upon close examination, the effect is of a uniform chocolate-colored egg. Av. size 19.6 x 14.5 (.77 x .57). *Season:* June 15–July 25; one brood.

Taken in Siskiyou County *Photo by the Author*

MOUNT SHASTA
WHERE THE LAST BREEDING PIPITS OF CALIFORNIA WERE SEEN

General Range.—Breeds in the Arctic and Hudsonian zones from northeastern Siberia and the Aleutian Islands to the west coast of Greenland and Newfoundland, and on the higher mountains of the West south to Oregon and northern New Mexico. Winters from Puget Sound and the Ohio and lower Delaware valleys south to the Gulf coast and Guatemala. Casual in Bermuda; accidental in Helgoland.

Distribution in California.—Common migrant and winter resident at the lower levels, practically throughout the State, more abundant coastwise. Has probably bred on Mt. Shasta within historical memory, but no longer found there.

Authorities.—Gambel (*Anthus ludovicianus*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 114 (Calif.; winter); *Coues*, Birds of the Northwest, 1874, p. 40 (syn.; life hist.; nest and eggs); *Merriam*, N. Am. Fauna, no. 16, 1899, p. 130 (Mt. Shasta, in Alpine Arctic zone, "heard" July 17); *Swarth*, Condor, vol. ii., 1900, p. 110 (summer plumage); *Oberholser*, Auk, vol. xxxvi., 1919, p. 406 (syst.; nomencl.).

THE AMERICAN PIPIT does not sustain the habitual dignity of the boreal breed. He is no clown, indeed, like our Western Chat, nor does he quite belong to the awkward squad, with young Blackbirds; a trim form and a natty suit often save him from merited derision, but all close observers will agree that there is a screw loose in his make-up somewhere. The whole Pipit race seems to be struggling under a strange

inhibitory spell, cast upon some ancestor, perhaps, by one knows not what art of nodding heather bells or potency of subtly distilled Arctic moonshine. As the flock comes straggling down from Oregon they utter unceasing *yips* of mild astonishment and self-reproach at their apparent inability to decide what to do next. Their indecision is especially exasperating as one rides along a trail which is closely flanked by a primitive rail fence, as I have often done in the Northland. One starts up ahead of you and thinks he will settle on the top rail and watch you go by. As his feet near the rail he decides he won't, after all, but that he will go a few feet farther before alighting. If he actually does alight, he instantly tumbles off with a startled *yip*, as though the rail were hot and he had burnt his toes. Then he tries a post, with no better success, until you get disgusted with such silly vacillation and inane yipping, and clap spurs to your horse, resolved to escape the annoyance of having to follow such dubious fortunes.

In social flight the Pipits straggle out far apart, so as to allow plenty of room for their chronic St. Vitus's dance to jerk them hither or thither or up or down, without clashing with their fellows. Only a small percentage of those which annually traverse the State fly low enough to be readily seen; but when they do they are jolting along over the landscape and complaining at every other step. The note is best rendered *tlip-yip*, less accurately *pip-it* (whence of course the name); and a shower of these petulant sounds comes spattering down out of the sky when the birds themselves are nearly or quite invisible.

The fall migrations of this species appear to have a compound character. Birds which make their appearance early in September are likely to quarter themselves in a given locality for several weeks at a time, though whether these represent the first refugees from the high North, or mark the practical retreat of the mountaineers from Shasta and the higher peaks of Oregon, we cannot tell. Late comers pass through more rapidly, and the main host clears northern California by early November, although stragglers may be found in any lowland situation until December and, sparingly, in the Sacramento Valley, throughout the winter. They are especially partial to prairies, close-cropped pastures, the gravelly shores and bars of rivers, lakes, and ponds, and the shingle of sea-beaches. The Pipit is probably the best distributed and most characteristic bird of our southern beaches in winter. At this season the flocks are more or less dispersed and individuals pay little attention, or none, to possible comrades. In these circumstances a Pipit is the special despair of all properly constituted bird photographers. The bird appears to get up from under your feet the first time, when of course you wer'n't looking for him; but thereafter let one so much as focus a thought upon him and

AMERICAN PIPITS

the bird begins to fidget forthwith, to step stealthily, to forget his proper business of fly-catching, and to mutter about a forgotten engagement. At sixty feet,—the bird being at that distance about as large on a photographic plate as the small end of a dull pin—he scuttles to the top of a stranded kelp root and declares his intention of leaving instanter if you do not abate your rudeness. He stands his ground, however, till you are about to swing at an unsatisfactory range of forty feet, when he springs into the air with an exultant bound and shouts derisively, "*pip-it thlipit.*" Pip it! and also drat it!

The spring movement of return sets in early, and the northern passage is rather more direct. Spring flocks may be looked for in the fertile, plowed fields, where they feed attentively, often in absolute silence, moving about with "graceful, gliding walk, tilting the body, and wagging the tail at each step, much in the manner of a *Seiurus*."

Pipits are boreal breeders; and they nest at high altitudes (anywhere above timber line) from Oregon northward. Why they should have deserted our Sierras, which enthrall such glacial connoisseurs as Rosy Finch and White-crowned Sparrow, we cannot tell; but they are not suspected of nesting anywhere in California, save on Mt. Shasta, and their nests have not actually been found even there.

Because of this fact, we may be pardoned for following the Anthine fortunes a little further up the Sierra-Cascade ridge. At home, the

Pipit is a very different creature from the straggler of the long trail. On his native heather, surrounded by dwarfed fir trees, melting snow-fields, and splendid vistas of peak and cloud, he knows exactly what he wants, and is quite capable of flying in a straight line. The season is late, June 23, 1906, and the snows have only just released the impatient mountainside at 6000 feet elevation. Slate-colored Sparrows are caroling tenderly from the thickets of stunted fir. Sierra Hermit Thrushes, those minstrels of heaven, flit elusively from clump to clump or pause to rehearse from their depths some spiritual strain. Leucostictes look in upon the scene in passing, but they hasten at a prudent thought to their loftier ramparts. The real busybodies of the place are the Pipits. Females, lisping suspiciously, hurry to and fro, discussing locations, matching straws, playfully rebuking over-bold swains, and hastily gulping insects on the side. The male birds hover about their mates solicitously—never helping, of course—or else sing lustily from prominent knolls and rocks.

Taken in Santa Barbara *Photo by the Author*

PIPIT ON KELP ROOT

The American Pipit

The Pipit song in many of its phases is strikingly like that of the Rock Wren (*Salpinctes obsoletus*). It has the same vivacity and ringing quality, though perhaps less power, and the similarity extends to the very phrasing. An alarm note runs *pichoo pichoo pichoo*, given six or seven times, rapidly and emphatically; while another, *wee iich, wee iich, we iich*, is rendered, unless my eyes deceive me, with the same springing motion which characterizes the Wren. An ecstasy song of courting time (heard on Mount Rainier) runs *twiss twiss twiss twiss* (*ad lib.*), uttered as rapidly as the syllables may be said. It is delivered as the bird describes great slow circles in mid-air; and when the singer is exhausted by his efforts, he falls like a spent rocket to the ground.

For all this activity, however, the nests are hard to find. It was not until July 17, 1907, that the writer had his first piece of luck. A venturesome climb over the rock-wall which fronts the glacier of the Upper Horseshoe Basin (in the Stehekin country) had yielded only a last year's Leucosticte's nest and left me somewhat blown. As I was nearly down the cliff and breathing easier, a Pipit flew unannounced from a spur of the cliff upon which I was standing to the one beyond. Evidently she had heard the call of her mate, for the instant she lighted upon the cliff he was near her. But budge not a foot would he; whether he was suspicious or only exacting, one could not quite tell. At any rate he kept giving vent to a ringing, metallic note of apprehension. The female coaxed with fluttering wings, and moved slowly forward as she did so, finally securing the worm from her reluctant lord, when—whisk! she was back again and out of sight around the cliff on which I stood. I hastened forward to the farthest outstanding point which gave a partial view of the wall's face. No bird was in sight. Then I tossed pebbles against

Taken in Santa Barbara "A GOOD FELLOW AFTER ALL" *Photo by the Author*

the cliff-side, and from beneath the second summons fluttered the frightened Pipit. Five beautiful eggs, of a warm weathered oak, rather than mahogany shade, lay in an elegant nest of compacted grasses, wholly within the shelter of a niche in the rock. A tussock of grass clung just below, and a dwarf shrub afforded a touch of drapery above; while from the outstretched hand a flint-flake might have fallen clean of the wall, to the ice a hundred feet below. The male bird continued his outcries from the distant cliff, but the female at no time reappeared.

With the advance of summer, the Pipits lead their broods about the disrobed peaks, even to the very summits, as do the noble Leucostictes. Knowing this, we may readily excuse any little eccentricities which appear in our friends during the duller seasons. The Pipit is a good fellow, after all.

No. 162

Horned Lark

No. 162a California Horned Lark

A. O. U. No. 474f. **Otocoris alpestris actia** Oberholser.

Description.—*Adult male in spring and summer:* Fore-crown and sides of crown, including upper feathers of the supra-auricular tufts (the "horns"), a patch on sides of head including nasal tufts and lores and curving downward on cheeks, and a broad patch on jugulum, glossy black; chin and throat, sides of head behind malar patch, continuous with superciliaries and extreme forehead, white, more or less tinged with primrose yellow (lemon-yellow to strontian yellow), the yellow always present on chin and upper throat, and sometimes suffusing the entire area; occiput, cervix, sides of neck, anterior portion of wing, and sides of breast, rich vinaceous brown (nearest mikado brown, but ranging from pecan-brown to fawn-color); a lighter shade of the same on upper tail-coverts; the sides and flanks sparingly marked with mingled vinaceous and dusky; remaining upperparts, including wings and central pair of tail-feathers, fuscous to dusky, washed or fringed with vinaceous, or fading on edges of feathers to grayish brown; outer edge of first primary and outermost rectrix white; remainder of tail brownish black; remaining underparts white, faintly glossed with vinaceous; axillars and lining of wings pure white. Bill bluish black above, paling on mandible basally; feet brownish black; iris dark brown. *Adult male in fall and winter:* Duller, the yellow of head fully distributed and duller (as by admixture of neutral gray); the black areas of head slightly veiled by yellowish skirtings; the vinaceous of cervix, etc., less pure, reduced as though by wear, leaving more extensive dusky; the middle coverts lightly tipped with white. *Adult female in spring and summer:* Like adult male in spring, but much duller; the vinaceous of upperparts much reduced, approximately pure only on sides of neck, sides of breast, lesser wing-coverts, and upper tail-coverts; crown like back, i. e., dusky vinaceous skirtings; patch on sides of head, only faintly indicated, dusky and fulvous; black of jugulum reduced in area and invaded by whitish or vinace-

ous skirtings; yellow throat reduced, paler and duller. Bill and feet lighter. *Adult female in fall and winter:* Still duller, coloring more blended, the crown (at first) almost entirely overlaid with grayish brown; the jugular patch further reduced in area and skirted with fulvous; the breast washed with dull vinaceous buffy with some admixture of dusky; the throat pale dingy yellow. *Young, first plumage:* Quite different (epitomizing ancestral history); upperparts, including pileum, chiefly dusky to blackish, sharply speckled (on crown, sides of head, and on back) or edged (on scapulars and coverts and exposed flight-feathers and rectrices) with white; underparts chiefly white, but breast broadly spotted with diffused dusky. Increase of age brings a rapid increase of a buffy brown element, which becomes pervasive both as edging and centering of upperparts, and as a wash across breast. Bill dusky at tip, paling basally; feet and tarsi pale brown. Length of adult males about 152.4 (6.00); wing 99 (3.90); tail 66 (2.60); bill 11 (.43); tarsus 20.8 (.82). Females are somewhat smaller.

Recognition Marks.—Sparrow size; black patch on chest; black cheek and crown-patches; feather tufts or "horns" directed backward, distinctive. Less rufescent than *O. a. rubea;* darker than *ammophila* and *leucansiptila;* paler and less extensively dusky above than *strigata* and *insularis;* smaller and more rufescent than *merrilli;* much smaller and ruddier than *leucolæma.*

Nesting.— *Nest:* A depression in the ground, heavily lined with grasses, weed-stems, and flower-heads, often ornamented on the skirts by a partial pavement of mud-flakes, pebbles, cow-chips, etc.; placed in open field in light grass cover or at base of weed-clump. *Eggs:* 3 or 4; grayish white, or pale buffy brown (i. e., washed by pigment), finely and often uniformly sprinkled with buffy brown or drab, occasionally wreathed or cloud-capped, with clearer white on little end. Av. of 16 eggs from Kern County 21.1 x 15 (.83 x .59). *Season:* March–June; 2 or 3 broods.

Range of *Otocoris alpestris.*—Europe, Asia, northern Africa, North America, and northern South America.

Range of *O. a. actia* (Chiefly contained within California).—Resident in open situations west of the Sierran divide, and from the region of San Francisco Bay and Stockton south to the coast and northern Lower California. Occurs in the desert passes.

Authorities.—Gambel (*Phileremos cornutus*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1847, p. 54 (Calif.); *Shufeldt*, Bull. U. S. Geol. and Geogr. Surv. Terr., vol. vi., 1881, p. 119, pl. iv. (osteology); *Bendire*, Life Hist. N. Am. Birds, vol. 2, 1895, p. 341, pl. (life hist.; nest and eggs, etc.); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 845 (orig. desc.; type locality, Jacumba, San Diego Co.); *McAtee*, U. S. Dept. Agric., Biol. Surv. Bull., no. 23, 1905, p. 30, fig. (food); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 34, 1910, p. 44 (food); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 62 (San Joaquin Valley; habits; nesting dates).

No. 162b Ruddy Horned Lark

A. O. U. No. 474g. **Otocoris alpestris rubea** Henshaw.

Description.—Similar to *O. a. actia*, but more strongly rufescent; vinaceous brown of cervix, etc., deeper and ruddier (but still, nearest mikado brown); the wing-coverts, especially, more extensively vinaceous; plumage of remaining upperparts more blended. The increased ruddiness even more noticeable in female, which is also more heavily shaded across breast. Length of male 159 (6.26); female 148 (5.83).

Range of *O. a. rubea* (Wholly contained within California).—Resident in the Sacramento Valley.

Authorities.—Heermann (*Alauda rufa*), Jour. Acad. Nat. Sci. Phila., ser. 2, ii., 1853, p. 265 (Calif.); *Henshaw*, Auk, vol. i., 1884, p. 267 (orig. desc.; type locality, "Stockton"; see Ridgway, U. S. Nat. Mus. Bull., no. 50, p. iv., 1907, p. 322, footnote); *Townsend*, Proc. U. S. Nat. Mus., vol. x., 1887, p. 210 (Sacramento Valley; desc. nest and eggs); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 851 (monogr.).

No. 162c Streaked Horned Lark

A. O. U. No. 474h. **Otocoris alpestris strigata** Henshaw.

Synonym.—Pacific Horned Lark.

Description.—Similar to *O. a. actia*, but much darker; the dusky element of back, scapulars, etc., dominant and nearly blackish, set off streak-wise by buffy brown and vinaceous edging; the vinaceous element scarcely different in tone, but more narrowly confined; the yellow component increasing, usually more or less diffused over entire underparts, or at least over breast below jugulum. Size of *actia*.

Range of *O. a. strigata*.—Northwest Pacific coastal strip; breeding in Oregon and Washington west of the Cascades; in winter to eastern Washington, Oregon, and northern California.

Distribution in California.—Winter visitant in northern California, but chiefly in the Sacramento Valley south to Stockton and San Francisco (?) [The subsequent delimitation of *O. a. sierræ* Oberholser, known to occur in winter in the Sacramento Valley, throws doubt upon the earlier identifications of *strigata* in the southern portion of its alleged range].

Authorities.—Belding (*Eremophila alpestris*), Proc. U. S. Nat. Mus., vol. i., 1878, p. 423 (Marysville, Feb.; see Ridgway, U. S. Nat. Mus. Bull., no. 50, pt. iv., 1907, p. 316); *Townsend*, Proc. U. S. Nat. Mus., vol. x., 1887, p. 210 (Red Bluff, Dec.); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 837 (monogr.; Red Bluff, San Francisco).

No. 162d Island Horned Lark

A. O. U. No. 474n. **Otocoris alpestris insularis** C. H. Townsend.

Description.—Very similar to *O. a. strigata*, but "slightly darker"—at least the vinaceous element may conceivably be darker, although the dusky (blackish) element is a shade lighter; yellow of throat (nearly wax-yellow) stronger, if anything, and remaining underparts said to be less usually diffused with yellow. Size of *actia*.

Remark.—Except for the striking discontinuity of range, no one would ever have dreamed of claiming subspecific distinctness as between *strigata* and *insularis*. They are actually if not logically inseparable. Neither will the theory of parallelism of development account for this origin of forms so similar in regions as diverse as Santa Cruz Island (where *insularis* is at its best) and Puget Sound. There must be a historical connection between them, and that a recent one.

Range of *O. a. insularis* (Wholly confined within California).—Common resident on all of the Santa Barbara islands. Casual upon adjoining portions of the mainland in winter.

Authorities.—Cooper (*Phileremos cornutus*), Proc. Calif. Acad. Sci., vol. iv., 1870, p. 78 (Santa Barbara Id.); *Henshaw*, Rep. Wheeler's Survey, 1876, App. JJ, p. 248 (Santa Cruz Id.); *Townsend*, Proc. U. S. Nat. Mus., vol. xiii., 1890, p. 140 (orig. desc.; type locality, San Clemente Id.); *Grinnell*, Pasadena Acad. Sci., Pub. no. 1, 1897,

pp. 5, 10, 16 (desc. nest and eggs); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 839 (monogr.); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 67 (syn., occurrence, habits, etc.).

No. 162e Columbian Horned Lark

A. O. U. No. 474j. **Otocoris alpestris merrilli** Dwight.

Synonyms.—Dusky Horned Lark (name misleading). Merrill's Horned Lark.

Description.—Similar to *O. a. actia*, but slightly larger and decidedly paler; the vinaceous element more restricted in area, lighter and grayer in tone (about vinaceous-fawn); the brownish dusky of back tending to fall more into streaks, the edgings pale brownish buffy rather than vinaceous; the yellow element slightly paler and more frequently confined to throat. Length of male 162 (6.38); of female 154 (6.06).

Range of *O. a. merrilli.*—The Columbian plateau and adjoining districts of the north interior. Breeds from southern British Columbia and northeastern Idaho south to northeastern California. Winters irregularly south.

Distribution in California.—Breeds in Modoc County and possibly further west. Winters south through northern California, at least to Stockton.

Authorities.—Dwight, Auk, vol. vii., 1890, p. 153 (orig. desc.; type locality, Ft. Klamath, Ore.; Calif. in migr.); *Merrill*, Auk, vol. v., 1888, p. 259 (Ft. Klamath, Ore.; habits, desc. nest, etc.); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 833 (monogr.; Calif. localities).

No. 162f Sierra Horned Lark

A. O. U. No. 474j, part. **Otocoris alpestris sierræ** Oberholser.

Description.—"Similar to *Otocoris alpestris actia* but upper parts darker; nape more cinnamomeous; back more blackish and more contrasted with neck; and posterior lower parts usually decidedly tinged with yellow" (Oberholser).

Range of *O. a. sierræ* (Wholly contained within California).—"Breeds in the region of the Sierra Nevada in California south to Placer County and north to Lassen County. Winters also in the Sacramento Valley" (Oberholser).

Authority.—Oberholser, Condor, vol. xxii., 1920, p. 34 (orig. desc.; type locality, Pine Creek, Lassen Co.).

No. 162g Desert Horned Lark

A. O. U. No. 474d. **Otocoris alpestris leucolæma** (Coues).

Synonyms.—Plains Horned Lark. Great Basin Horned Lark.

Description.—Similar to *O. a. actia*, but somewhat larger and much paler, less rufescent; the cervix, bend of wing, etc. (of male), pinkish cinnamon; the (basally white) head-patches less strongly tinged with yellow. Length of adult male 162.6 (6.40); wing 105.8 (4.165); tail 71.5 (2.815); bill 11.5 (.45); tarsus 21.8 (.86). Adult female: length about 152.4 (6.00); wing 98.6 (3.88); tail 64 (2.52); bill 10.5 (.41); tarsus 21.1 (.83).

Range of *O. a. leucolæma.*—"Great Plains and Great Basin. Breeds chiefly in Transition zone from southern Alberta and southern Saskatchewan to southern Nevada, northern New Mexico, and western Kansas; winters south to southern California, Texas and Sonora."

Distribution in California.—Winter visitant to east-central and southern California, chiefly desertwise; casual west of the Sierras at Stockton.

Authorities.—**Oberholser,** Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 820 (monogr.; Calif. localities); *Dickey and Van Rossem*, Condor, vol. xxiv., 1922, p. 94 (s. Calif. localities in winter).

Taken in San Luis Obispo County *Photo by the Author*

NEST AND EGGS OF CALIFORNIA HORNED LARK

No. 162h Mohave Horned Lark

A. O. U. No. 474d, part. **Otocoris alpestris ammophila** Oberholser.

Description.—Similar to *O. a. actia*, but paler; the color of upperparts more blended, with decrease of the dusky element; the vinaceous element lighter and grayer (vinaceous-fawn, about as in *merrilli*), but less uniform by reason of darker centers of feathers. About the size of *actia*, or a little larger. A rather "light" form!

Range of *O. a. ammophila* (Wholly contained within California).—"In summer, the Mohave Desert, north to Owens Valley, California; in winter, south to the Mexican boundary line" (Oberholser).

Authorities.—**Fisher** (*Otocoris alpestris arenicola*), N. Am. Fauna, no. 7, 1893, p. 66, part (Coso Valley, Mohave Desert, Darwin, etc.); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 849 (monogr.; orig. desc., type locality, Coso Valley, s. e. Calif.).

No. 162i Yuma Horned Lark

A. O. U. No. 474k, part. **Otocoris alpestris leucansiptila** Oberholser.

Synonym.—Bleached Horned Lark.

Description.—Very similar to *O. a. ammophila*, but still paler, the vinaceous element lighter by reason of increased hoariness of edgings; the dark element no longer dusky, but grayish brown, and still further reduced by lighter edgings and pinkish diffusion; yellow of throat unmodified, but forehead and superciliary averaging whiter than in *actia*. Slightly larger than *O. a. actia*.

Range of *O. a. leucansiptila*.—"Extreme southwestern Arizona, extreme southeastern corner of California, and northeastern Lower California along the international boundary line, north to southern Nevada" (Oberholser).

Distribution in California.—Resident locally on Colorado Desert west to Mecca and in Imperial Valley.

Authorities.—Oberholser, Proc. U. S. Nat. Mus., vol. xxiv., 1902, p. 864 (monogr.; orig. desc.; type locality, Yuma, Ariz.; spec. from Coyote Well, San Diego, Calif.); *Grinnell*, Pac. Coast Avifauna, no. 11, 1915, p. 95 (distr. in Calif.).

In the foregoing paragraphs we have taken account of certain obtrusive questions of variation and distribution which pertain to this very plastic species; but the case of the Horned Lark is such a complicated one, that we cannot hope to follow all its intricacies. The characters which interest us, those of behavior and general economy, are common to all the "forms." On the other hand, general statements regarding seasonal movements, dates of breeding, and the like, are as much out of place within the limits of a single form, as for the species itself. The fact is that the Horned Lark is so plastic and so perfectly adjusted to its environment that its actions everywhere reflect local conditions. For example, *O. a. rubea* does not appear to nest in the cooler, semi-transitional coast belt of Santa Barbara before May; while in eastern San Luis Obispo County the same subspecies nests in early April; and in the neighborhood of Pasadena it lays eggs as early as February. In like manner, dwellers in the cooler coastal belt stay at home in summer; while those living in the heated interior flee to the higher ranges. These differences in custom may theoretically reflect themselves in exterior characters; but the search for such marks has already pressed the limits of sanity.

EREMOPHILA, desert-loving, is a name once used for the Horned Lark, but now denied us by the jugglery of nomenclature. No fitter title could have been chosen, for the modest bird has an unconquerable affection for the open places; and (save for his modesty) no fitter bird could be found to symbolize the joy of the Californian in his sun-kissed, clean-aired State. The Horned Lark, never too common, is, nevertheless, to be found almost everywhere, if timber, or chaparral, or outrageous "crops" have not fenced him out. He even ventures at times over the Sierran snows.

But modesty becomes a bird whose home is on the ground; and he hugs its tiny shelters when disturbed, as though quite assured that its brownness matched the tint of his back. If attentively pursued, he patters away half trustfully; or if he takes to wing, he does so with a deprecating cry of apology, as if the fault were his instead of yours. If

his business keeps him in the same field, he will reappear presently, picking from the ground with affected nonchalance, at a rod's remove; or else, pausing to face you frankly with those interesting feather-tufts of inquiry, supported by black moustachios and jetty gorget on a ground of pale primrose.

A dusty road possesses irresistible attractions for our hero; and a traveler's progress, whether a-foot or a-wheel, in any interior country, may be measured by the number of Horned Larks displaced per mile. Displacement is no easy matter, either. The lark knows that that dusty road was made especially for him, and if you are rude enough to dispossess him, he will alight a rod or so ahead and survey you with mild reproach. If the intruder is in an automobile, the moment of survey is necessarily brief, but the bird will try again. A spirited passage of flitting and lighting ensues, in which the bird becomes fairly crazed in his determination to maintain a footing on that roadway; and, as a result, he misses death repeatedly by margins which the man at the wheel does not like to contemplate.

The unseeing class the Horned Larks among "brown birds" and miss the vaulting spirit beneath the modest mien. Yet our gentle Lark is of noble blood and ancient lineage. The Skylark, of peerless fame, is his own cousin; and while he cannot hope to vie with the foreign bird in song, the same poet soul is in him. A devoted Englishman, for some years resident on the edge of a certain Pacific prairie, having realized a competence, imported at no small expense a consignment of some forty English Skylarks. When I told him that there was a native lark already resident on that same prairie, he was dumbfounded. Cherishing only the fond memories of boyhood, he had altogether overlooked the offerings of his adopted home. Of course the Skylarks all died, as objects of such misplaced charity usually do; but the Streaked Horned Larks still flourish on that prairie near Tacoma. Whether in the pasture, therefore, or on the gravelly hillside, or in the desert, the coming of spring proclaims our gentle poet laureate; and in many places the chief vocal interest of nesting time centers in the song-flight of the male Horned Lark.

The song itself is, perhaps, nothing remarkable, a little ditty, or succession of sprightly syllables which have no considerable resonance or modulation, although they quite defy vocalization; yet such are the circumstances attending its delivery that it is set down by everyone as "pleasing," while for the initiated it possesses a charm which is quite unique. *Twidge-widge, widgity, widgy-widge*, conveys no idea of the tone-quality, indeed, but may serve to indicate the proportion and tempo of the common song; while *Twidge, widgity, eelooy, eelooy, idgity, eelooy, eew*, may serve the same purpose for the rare ecstasy song. The

MERRILL HORNED LARKS

bird sometimes sings from a fence-post, a sage-bush, or even from a hummock on the ground, but usually the impulse of song takes him up into the free air. Here at almost any hour of the day he may be seen poising at various heights, like a miniature hawk, and sending down tender words of greeting and cheer to the little wife who broods below.

It is, however, at the sacred hour of sunset that the soul of the heavenly singer takes wing for its ethereal abode. The sun is just sinking; the faithful spouse has settled herself to her gentle task for the night; and the bird-man has lain down in the shadow of the fence to gaze at the sky. The bird gives himself to the buoyant influences of the trembling air and mounts aloft by easy gradations. As he rises, he swings round in a wide, loose circle, singing softly the while. At the end of every little height he pauses and hovers, and sends down the full-voiced song. Up and up he goes, the song becoming tenderer, sweeter, more refined, and subtly suggestive of all a bird may seek in the lofty blue. As he fades from the unaided sight I train my glasses on him and still witness the heavenward spirals. I lower the glasses. Ah! I have lost

him now! Still there float down to us, the enraptured wife and me, those most ethereal strains, sublimated past all taint of earth, beatific, elysian. Ah! surely, we have lost him! He has gone to join the angels. "Chiquitica, on the nest, we have lost him." "Never fear," she answers; "Hark!" Stronger grows the dainty music once again. Stronger! Stronger! Dropping out of the boundless darkening blue, still by easy flights, a song for every step of Jacob's ladder, our messenger is coming down. But the ladder does not rest on earth. When about two hundred feet high, the singer suddenly folds his wings and drops like a plummet to the ground. Within the last dozen feet he checks himself and lights gracefully near his nest. The bird-man steals softly away to comfort his own dear ones, grateful for the message of love and trust brought by a bird.

Horned Larks are among the first to feel the prickings of a February sun. Communal life has been well enough in its way, but the interests of springtime are special. The transition is effected not without much riot of amorous pursuit, and some attendant heart-ache, no doubt; but by the end of February or April, according to local conditions, domestic

Taken on San Clemente Island *Photo by D. R. Dickey*

NEST AND EGGS OF ISLAND HORNED LARK

order emerges from the chaos of rival claims, and little homes begin to dot the plain. "Dot" is a good word, although you cannot find a nest as easily as you might a ·, novice that you are, in a box of printer's pi. The nest is not so much concealed as subordinated, swathed in obscurity. At best it does no more than fill the hollow of some cavity, natural or artificial,—a wheel-rut, a footprint of some horse or cow, a cavity left by an upturned stone, or, as in one instance, the bottom of an unused golf hole.

The number of eggs in a set varies from two to four, three being most commonly found. In color the ground is grayish white, while dots of greenish gray or reddish gray are now gathered in a heavy wreath about the larger end, and now regularly distributed over the entire surface—sometimes so heavily as to obscure the ground. The eggs are often very perceptibly glossed and there is frequently a haunting greenish or yellowish tinge which diffuses itself over the whole—an atmosphere, as the artist would say.

Horned Larks owe their preservation chiefly to the wariness of the female, for she flushes at long distances. Either she will slip off quietly and sneak at thirty yards, or else flush straight at a hundred. When the nest is discovered, she is quite as likely to ignore the intruder, and seldom ventures near enough to betray ownership. On the other hand, given patience and a pair of strong binoculars, "tracking" is not a difficult accomplishment. Of course the nest is at the mercy of the wandering footstep, and if the sufferings of an oölogist (intent on a larger set) are any index, the bird must endure agonies of apprehension in the presence of a grazing herd of cattle, while a flock of sheep spells almost certain disaster.

Golf-links are treasure trove for Horned Larks, and nothing short of annihilation will persuade them of the ever recurring dangers. Mr. J. H. Bowles records three instances in which larks were killed by flying golf balls; and another gentleman, himself a devotee of the game, tells me that he once saw a bird struck dead in midair.

Octoris is, however, a prolific breeder. Two and sometimes three broods are raised each season. Nests are also found in June and July at altitudes which forbid the supposition that birds could have bred earlier in the same locality. It is inferred, therefore, that a partial migration occurs after the first nesting. Certainly when the second brood is able to move, family parties and neighborhood groups forsake the warm lowlands and ascend, sometimes to the very summits of the more exposed peaks. Thus, Grinnell found twenty Horned Larks (*O. a. actia*) on the top of San Gorgonio Peak (alt. 11,485) on the 16th of July, 1906.

At the conclusion of the breeding season large companies assemble, sometimes to the number of hundreds. The northern members of the

clan are driven southward, or downward, as the case may be, while the non-migrating forms foregather in dozens, or scores, where food is abundant. They are also somewhat given to wandering about in straggling flocks, and the mild cries which they scatter freely have a subdued and plaintive tone, borrowed, no doubt, from the chastened character of the season. A sitting flock will sometimes allow a very close approach, but when they do so, they "freeze" so perfectly that the eye can scarcely find them. The only thing to do under such circumstances is to freeze also, until the birds begin to limber up and steal cautiously away, taking advantage, for concealment, of every tuft of grass or depression of the ground, and giving occasional admonitory *yips* to their fellows.

ken in Kern County *Photo by the Author*

DESERT RANGE OF THE MOHAVE HORNED LARK

No. 163

Scissor-tailed Flycatcher

A. O. U. No. 443. **Muscivora forficata** (Gmelin).

Description.—*Adult male:* Foreparts light gray, clearest, almost white on chin and throat; a subaxillary patch on side of breast and a concealed patch on crown scarlet or grenadine red; the axillars, wing-linings, sides, and posterior underparts ochraceous salmon or salmon-buff. This red element appears on back and scapulars, where intimately mingled with gray, and is continued in a diluted form (pale ochraceous salmon) over the greatly prolonged exterior rectrices (two pairs) for about two-thirds of their length; the wing-coverts dusky, edged with pinkish, buffy, or white; the primary coverts, wing-quills, upper tail-coverts, and remaining portion of tail black. Bill dark horn; feet brownish black. *Adult female:* Like male, but tail only two-thirds as long and crown-patch obsolete or wanting; the red element in the plumage much reduced in intensity, flame-scarlet on the subaxillary patches, capucine buff to light buff posteriorly. Length of adult male (skins): 320 to 365 (12.60-14.37); wing 125 (4.92); tail 200-255 (7.87-10.04); bill 18 (.71); tarsus 18.2 (.717).

The Scissor-tailed Flycatcher

Recognition Marks.—Towhee size (disregarding the prolonged tail-feathers): the lengthened tail with light gray-orange-and-black coloration unmistakable.

Nesting.—Does not breed in California. *Nest:* Normally of twigs, rootlets, or weed-stems, copiously lined with wool, cotton, or other soft materials; occasionally bulk of nest consists of "Spanish moss" or any soft substance available; placed 5 to 40 feet high in trees or shrubs, usually on horizontal limb in more or less exposed situation. *Eggs:* 4 to 6, usually 5; ovate or rounded ovate; clear white or pale creamy, rarely palest pink, strikingly but sparingly spotted or blotched with maroon (burnt lake to claret brown) and a little lavender (deep grayish lavender to deep dull lavender). Av. of 107 (U. S. N. M.): 22.5 x 17 (.89 x .67). *Season:* May, June (April 19–July 6); one or two broods.

General Range.—Breeds in Texas and Oklahoma and narrowly in adjoining states to the north and east of this area; winters from southern Mexico to Panama; accidental locally from Florida to New Brunswick, Keewatin, and Colorado, and in California.

Range in California.—One specimen taken in northern Los Angeles County.

Authorities.—Swarth, Condor, vol. xvii., 1915, p. 203.

THE SOLE claim offered by this bird for a place upon the California list was made by a single example, an adult male secured by Dr. I. D. Nokes, of Los Angeles, on June 26, 1915, in the northern part of Los Angeles County, on the Elizabeth Lake road. When first seen, the bird was flitting from post to post along a roadside fence, and there was nothing in its appearance to suggest the unusual; but upon dissection it was found to have a partly healed injury upon the head, as though it might have collided with a telegraph line or other obstacle. This Scissor-tail was evidently not an escaped cage-bird, for the maintenance of such a species would be all but impossible. On the whole, probably Mr. Daggett's suggestion is as good as any. He surmised that the bird might have been accidentally trapped somewhere in Texas in an empty cattle car waiting re-shipment to California. It is quite conceivable that this involuntary hobo might have subsisted upon the flies which swarm about such a reeking stable, even en route, and might have effected its escape at, say, Mohave.

Upon its native heath in Texas the graceful Scissor-tail is one of the most familiar, as it is the most courageous, of birds. Since he is quite exotic, we rejoice in the necessity of quoting these able paragraphs from Mrs. Bailey:

"One of his favorite performances is to fly up and, with rattling wings, execute an aerial seesaw, a line of sharp-angled VVVVVV's, helping himself at the short turns by rapidly opening and shutting his long white scissors. As he goes up and down he utters all the while a penetrating scream, *ka-quee -ka-quee ka-quee -ka-quee -ka-quee*, the emphasis being given each time at the top of the ascending line.

"Frequently when he is passing along with the even flight of a sober-minded crow and you are quietly admiring the salmon lining of his wings, he shoots rattling into the air, and as you stare after him, drops back as suddenly as he rose. He does this apparently because the spirit moves him, as a boy slings a stone at the sky, but fervor is added by the appearance of a rival or an enemy, for he is much like a *Tyrannus* in his masterful way of controlling his landscape. He will attack caracaras and white-necked ravens, lighting on their backs and giving them vicious blows while screaming in their ears." (Handbook of Birds of the Western United States.)

No. 164

Kingbird

A. O. U. No. 444. **Tyrannus tyrannus** (Linnæus).

Synonyms.—Eastern Kingbird. Bee Martin. Tyrant Flycatcher.

Description.—*Adult:* Above slaty black, changing to pure black on head, and fuscous on wings; crown with a concealed orange-red (orange-chrome to cadmium orange) central patch, or "crest," the orange feathers black-tipped and overlying others broadly white at base; wings with whitish and brownish ash edgings; tail black, all the feathers broadly white-tipped, and the outermost pair often white-edged; below white, washed with grayish on breast. Bill and feet black. *Immature* birds lack the crown-patch, and are more or less tinged with fulvous or buffy on the parts which are light-colored in the adult. Length 203-228.6 (8.00-9.00); wing 116.8 (4.60); tail 84.1 (3.31) bill from nostril 13.2 (.52).

Recognition Marks.—Towhee size; blackish ash above; *white* below; black tail conspicuously tipped with white; noisy and quarrelsome.

Nesting.—*Nest:* At moderate heights in trees, usually over water; of weed-stalks, plant-fibers, and trash, with a felted mat of plant-down or wool, and an inner lining of fine grasses, feathers, rootlets, etc. *Eggs:* 3 or 4, sometimes 5; white or pale creamy white, distinctly but sparingly spotted with chocolate of several shades and vinaceous gray. Av. size 24.1 x 18.2 (.95 x .72). *Season:* 1st week in June; one brood.

General Range.—North America from the British Provinces south; in winter through eastern Mexico, Central and South America. Less common west of the Rocky Mountains. Not recorded from northern Mexico and Arizona.

Occurrence in California.—Rare or casual, in summer in the extreme northeastern portions of the State. Has occurred on Owens Lake (June 29, 1891, by A. K. Fisher). Accidental at Santa Monica (Aug. 31, 1895, by W. B. Judson).

Authorities.—**Fisher,** N. Am. Fauna, no. 7, 1893, p. 59 (Olancha, near Owens Lake, June 29, 1891, one seen); *Grinnell,* Pasadena Acad. Sci. Pub., no. 2, 1898, p. 29 (Santa Monica, Aug. 31, 1895, one spec.); *Bendire,* Life Hist. N. Am. Birds, vol. ii., 1895, p. 236, pl. 1, figs. 14, 15 (habits); *Beal,* U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 11, pl. 1 (food).

The Kingbird

SCATTERED records from the northeastern corner of the State establish a suspicion that the Eastern Kingbird is among the rare breeders. If so, it is probably on the increase; and this hope may justify a few paragraphs not "made in California."

"No one has come forward with a theory to account for the testiness of this bird's temper, nor for the domineering qualities which distinguish him above all others; but I hazard that it is because his glowing crown is partially concealed by bourgeois black. Those whose regal marks are more patent are wont to receive homage as matter of course, but the scion of an unacknowledged house, a feathered Don Carlos, must needs spend a fretful life in defense of his claims. Toward those who knuckle down tamely the little tyrant is often very gracious, and it may be conceded that he does perform a real service in holding the common enemies at bay. Who has not seen him as he quits his perch on some commanding tree and hurries forward, choking with vengeful utterance, to meet and chastise some murderous hawk, who before any other foe is brave? Down comes the avenger! The Hawk shies with a guttural cry of rage and terror, while a little puff of feathers scatters on the air to tell of the tyrant's success. Again and again the quick punishment falls, until the tiny scourge desists, and returns, shaking with shrill laughter, to give his mate an account of his adventure.

aken in Washington *Photo by F. S. Merrill*

A DEMURE YOUNG TYRANT

"The food of the Kingbird consists entirely of insects, caught on the wing for the most part, by sallies from some favorite perch. His eyesight must be very good, as he not infrequently spies his prey at distances

of from twenty to fifty yards. Honey bees form an occasional but inconsiderable article of diet. Grasshoppers are not overlooked, and they sometimes capture, not without a scuffle, those big brown locusts (*Melanoplus sp.*) which make flippant exposure of their persons on a summer day. Both in the taking of food and in the discharge of police duties the Kingbird exhibits great strength and swiftness, as well as grace in flight. Once, when passing in a canoe through a quiet, weed-bound channel, I was quite deceived for a time by the sight of distant white-breasted birds dashing down to take insects near the surface of the water, and even, occasionally dipping under it. They had all the ease and grace of Tree Swallows, but proved to be Kingbirds practicing in a new role.

"This fondness for water is often exhibited in the birds' choice of a nesting site. Where accustomed to civilization, orchard or shade trees are preferred, but on many occasions nests are found on low-swinging horizontal branches overhanging the water; and, as often, in tiny willow clumps or isolated trees entirely surrounded by it. The nest of the Kingbird sometimes presents that studied disarray which is considered the height of art. Now and then a nest has such a disheveled appearance as to quite discourage investigation, unless the owners' presence betrays the secret of occupancy. Ordinarily the nest is placed in an upright or horizontal fork of a tree at a height of from three to forty feet. Twigs, weed-stalks, and trash of any kind enter into the basal construction. The characteristic feature of the nest, however, is the mould, or matrix, composed of vegetable plaster, ground wood, and the like, or else of compacted wool and cow-hair, which is forced into the interstices of the outer structure and rounded inside, giving shape to the whole. This cup, in turn, is lined with fine grasses, cow-hair, or variously. Occasionally, nests are found composed almost entirely of wool. In others string is the principal ingredient.

"Although the Kingbird never sings, it has a characteristic and not unmusical cry, *tizic, tizic* (spell it *phthisic*, if you favor the old school) or *tsee tsee tsee tsee*, in numerous combinations of syllables, which are capable of expressing various degrees of excitement and emotion." (The Birds of Washington.)

No. 165

Western Kingbird

A. O. U. No. 447. **Tyrannus verticalis** Say.

Synonyms.—Arkansas Kingbird. Arkansas Flycatcher.

The Western Kingbird

Description.—*Adults:* In color pattern very similar to *T. vociferans*, but ashy of foreparts, back, etc., lighter; above light neutral gray; below pale neutral gray; chin and throat paler or whitish, but shading gradually into yellow of remaining underparts; wings plain fuscous or with a few edgings of paler on middle coverts and tertials; the outer web of outer pair of tail-feathers pure white, the tip of the wing formed by the 4th primary; the 1st longer than the 5th; the five outer primaries attenuate-emarginate, the first acicular. *Females* and *young* with reduction or absence of crown-patch and non-attenuation of primaries as in *T. vociferans*. Measurements substantially as in *vociferans*, but bill averaging a little less.

Recognition Marks.—Towhee size; light ashy gray of foreparts and back; extensive yellow of belly; edge of tail abruptly white; whitish of throat *not* contrasting with prevailing gray.

Nesting.—*Nest:* Of twigs, grasses, string, wool, and other soft substances; placed at moderate heights in bushes or trees, or, as frequently, on beams and ledges of barns or other outbuildings. *Eggs:* 4 or 5; much like those of *T. tyrannus*; white, pale creamy white, or, very rarely, pale pinkish buff, spotted and blotched with chocolate and its various "self"-tones (sometimes brightening to liver-brown or even hessian brown, or yellowing and graying to snuff-brown, sayal brown, or even fawn-color) and vinaceous gray. Av. size 23.6 x 17.4 (.93 x .69). *Season:* April–June; one or two broods.

General Range.—Western United States, rare or transient in Pacific coastal strip, north regularly to southern British Columbia, southern Alberta, and Saskatchewan, east to western Minnesota, western Iowa, and western Texas, south to Chihuahua, breeding throughout its range; south in winter through Western Mexico to Chihuahua.

Distribution in California.—Common summer resident in Lower and Upper Sonoran zones nearly throughout the State; most abundant in semi-arid valleys of interior; less common on the deserts as a breeder; rare or wanting in the northwest humid coastal section; occasional breeder in Lower Transitional zone.

Authorities.—Gambel, Proc. Acad. Nat. Sci. Phila., vol. iii., 1847, p. 157 (Los Angeles); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 59 (San Joaquin Valley; habits, nesting dates, etc.); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 146 (lower Colorado Valley, manner of occurrence); *Kennedy*, Condor, vol. xvii., 1915, p. 65, figs. (nesting sites); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 64 (Santa Barbara Ids.).

BELOVED of all but nervous invalids and "grouches" is this genial, garrulous, irresponsible tyrant of the West. Himself a lover of the open country, he has become the presiding genius of all properly conducted ranches. Guest he is not, host rather; and before you have had time to shut off the motor and clap on the brakes, this bird bustles forth from the eucalyptus row and hovers over you with noisy effusiveness. The boisterous greeting is one-third concern for his babies in the shade tree hard-by, one-third good fellowship, and the remainder sheer restlessness. The Western Kingbird is preëminently a social creature. And by social in this case we mean, of course, inclined to human society. For, although the bird may start up with vociferating cries every time a member of the besieged household sets foot out of doors, one is reminded

by these attentions rather of a frolicsome puppy than of a zealous guardian of the peace. Those who have been most honored by their presence year after year claim that the birds become fond of certain members of the family, and allow a familiarity in nest inspection which would be shriekingly resented in the case of strangers.

One can readily guess a utilitarian consideration in favor of ranch life, viz., the greater variety and abundance of insects afforded. Of these the Kingbirds enjoy a practical monopoly by reason of their confidence in man. They are fond of flies, moths, butterflies, crickets, winged ants, and all that sort of thing. Moreover, they eat bees. But, —[Hold on, Mr. Rancher! Don't grab that shot-gun and begin murdering Kingbirds] *they eat only drones.* A prominent bee-keeper, Mr. A. Barnett, in San Diego County, was curious on this point and dissected over a hundred specimens of Western Kingbirds and Phœbes, using a microscope in the examination of stomach contents. The birds had been shot about the apiaries, where they had been seen darting upon and catching bees. Although many of the birds were gorged, no working bees were found, only drones. This is an important distinction to bear in mind, for the reduction of drones is unqualifiedly beneficial. And when one stops to think of it, it is absurd to suppose that a bird could swallow bees, stings and all, with impunity.

But the real secret of Kingbird's attachment for mankind is not discovered until we see his nest. It is our *strings* which have won his heart. Whatever else the nest may or may not contain, it is sure to have

Taken in Kern County *Photo by the Author*

THE KINGBIRD'S REALM

Taken in Washington *Photo by the Author*

WESTERN KINGBIRD AT NEST

string,—string in strands, string in coils, string in bunches, hanks, and tangles, drug store string of a dissipated crimson hue, white string that came around the sugar, greasy string that you had tied around your finger to remind you to feed the chickens, string of every length and size and use and hue.

Those Western Kingbirds which have not yet adopted men manage to subsist somewhat after the fashion of their eastern cousins, and build a nest of twigs, grass, weed-stalks, bark strips, and cottonwood down, placing it against the trunk, or saddling it upon a horizontal fork of willow, poplar, cottonwood, or oak, usually near water. Even that most inhospitable of trees, the eucalyptus, is made to do service sometimes; and if the birds only knew it, they are safest there.

But, more commonly, nests are placed about crannies and projections of farm buildings, fences, unused hayricks, windmills, or even upon the house itself. The crossbars of telegraph and telephone poles and power-line trestles are favorite places, because of the command they give of the insect world. In the Fresno region Mr. Tyler has told

us[1] how the smaller telephone lines of that section are "supported on poles without crossbars, the majority of these poles being about four inches in diameter and extending to a height of about sixteen feet, excepting where the lines cross entrances to farmhouses or intersecting roads, in which case the wires are raised several feet to permit the passage of derricks and other tall machinery. This additional height is attained by nailing two two-inch pieces to the original pole on opposite sides, thus leaving a *four-inch platform*, protected on two sides, on which a nest just fits snugly. A drive through the country, during the summer months, now reveals a pair of Kingbirds tenanted in nearly every such pole." Perhaps the oncoming of wireless telephony will deprive our friends of their myriad citadels. If such threatens to be the case, it will pay us to provide artificial supports, for the usefulness of these birds in controlling the balances of the insect world and in preventing unseasonable outbreaks of pests, such as crickets and grasshoppers, is simply incalculable.

Eggs, to the number of four or five, are deposited from the 1st of May to the middle of June. Beauties they are, too, creamy white, with bold and handsome spots of chestnut in two shades, and lilac-gray.

Taken in Washington *Photo by the Author*

"IT IS SURE TO HAVE STRING"
NEST AND EGGS OF WESTERN KINGBIRD

[1] Pac. Coast Avifauna, No. 9, by John G. Tyler, 1913, p. 60.

Photo by Donald R. Dickey

Taken in the Ojai

THE CROWN PRINCE

Incubation is accomplished in twelve or thirteen days, and the youngsters fly in a matter of two weeks.

These Kingbirds are model parents, good neighbors, and, if one can stand their noise, good "citizens." Exception must be made of the courting season, when the feelings of the gentlest are likely to be ruffled. Kingbirds are hotspurs here, and they dearly love a scrimmage. When a row starts, neighbors hasten to the fray, and from the hubbub which ensues one might think the tragedy of the Kilkenny Cats was being enacted in midair. But there are no bones broken, and not many feathers shed, and the neighbors come home chuckling. It was a good fight!

When these little differences of amorous opinion are settled, the Kingbirds get on splendidly, even with their own kind. Where cover is rare two or more pairs will nest in the same tree without strife; and the excellent relations which exist between *T. verticalis* and *T. vociferans* are notorious. It is only in the presence of enemies, real enemies, that Western's fighting blood is aroused. Hawks and crows and snooping Jays are set upon and punished relentlessly. My son William saw a Kingbird chase a Red-bellied Hawk and actually settle upon his back for the space of ten seconds. What the poor buzzard was suffering all that time from the tyrant's beak and claws we can only guess. And once I saw a Western Kingbird set upon a pair of Yellow-billed Magpies and punish them unmercifully, and that in spite of the fact that the Pies did some very creditable team-work. They were no cowards and when they were beaten they fairly ached with anger.

Smaller birds flock to the ægis of this valiant defender; and in regions where they nest in trees, as on the oak-clad hills of San Benito County, it is rare to find an instance where Linnets or Goldfinches or Nuthatches have not availed themselves of the able protection afforded. In the northern section Bullock Orioles are grateful debtors to the Kingbird's prowess; and Bendire narrates an instance where a pair of Swainson Hawks—most harmless of birds—lived on pleasant terms with the Western Kingbirds in the same tree.

As a husband and father the Western Kingbird leaves little to desire.

If there is some loud talk about the home, there is also a great deal of tenderness, watchful devotion, and genuine interest in the welfare of his mate. Affection is not all taken for granted, but its expressions are gallantly renewed. There is with them a constant give-and-take of domestic pleasantries, and much whimsical comment on the passing show,

Taken in the Ojai *Photo by Dickey*

GIMME, METOO AND GOT

such as serves to keep up the spirits of the matrimonially enthralled.

As a noise-maker *T. verticalis* has few rivals and no peers. Blatting calves and motherless puppies may be more constant to their woes, but they lack the Kingbird's variety and expressiveness. They lack, too, his opportunity, for the eye of the Kingbird beholds all things, all comings and goings, all threatenings and alarms, all occasions for comment, be they real or imaginary.

To speak briefly of his vocal qualities, one notes first a series properly called a courting song, which sounds at an unearthly hour before sun-up of an April morning. The love song is, curiously, a sneeze. For the early notes are ridiculously like the frantic protests of a prospective victim of cachination, followed by an emphatic and triumphant relief:

añ a- *añ a*
añ *añ*
añ *kuchez'iwick, añ* *kuchez'iwick!*

The characteristic short note is a sort of *plick*, uttered with a good deal of energy and so much of variation that we hesitate to syllabize it—call it the *chup* note. This is varied by *berwick*, a perfectly characteristic and definite utterance. Then for a call, or challenge note, the bird has a long vibrant roll or rattle; and this roll, rendered staccato with every degree of length and intensity, is used on every occasion of meeting, whether of friendly welcome to a mate, or of execration at sight of a rival. Its utterance shows the owner to be an emotional and highly excitable bird. Call him an alarmist, Sir Clackchops, and general busybody, if you will. He is nevertheless a very good fellow, beloved, as I say, of all but invalids and cynics.

No. 166

Cassin Kingbird

A. O. U. No. 448. **Tyrannus vociferans** Swainson.

Description.—*Adult male:* Head and neck above and on sides dark ashy gray (neutral gray); a partially concealed crown-patch orange-red, or scarlet; space about eye and auriculars darker, nearly black; sides of neck shading into lighter ashy gray (light neutral gray) of breast; chin and upper throat, including malar area, definitely white; ashy of breast shading broadly "on lower breast" into pure yellow (empire yellow) of remaining underparts; back, scapulars, and rump ashy gray (light neutral gray) washed with olive-green (yellowish oil green), shading to black of upper tail-coverts and tail; tip of tail and outer webs of lateral rectrices much paler, but never white; wings fuscous with much paler edging; first five primaries sharply and decreasingly but not extensively emarginate on the inner web; the tip of the wing formed by the third primary, closely supported by the second and fourth. Bill and feet blackish. *Adult female:* Like male, but crown-patch reduced and primaries scarcely or not conspicuously emarginate. *Young birds* are paler, have no crown-patch, and are without suggestion of emargination on wings. Length (skin) 208 (8.19); wing 132.7 (5.22); tail 93.1 (3.66); bill 9.7 (.38); tarsus 9.2 (.36).

Recognition Marks.—Towhee size; ashy gray and yellow coloration; throat white, contrasting with gray; and edge of tail not definitely white, as contrasted with *T. verticalis*.

Nesting.—*Nest* and *Eggs* individually indistinguishable from those of *T. verticalis*. The eggs are perhaps slightly warmer, more pinkish in tone. Av. of 80 specimens in the collections of the Museum of Comparative Oology: 22.8 x 17.5 (.90 x .69). Extremes 20.6-25.4 x 16.5-19.8 (.81-1.00 by .65-.78). *Season:* April–June; one or two broods.

General Range.—Western North America. Breeds in Sonoran zones north to central California and southern Wyoming, east to eastern Colorado and western Texas, south to Michoacan. Winters from southern California and northern Mexico to Guatemala. Casual in northern California and in Oregon.

Distribution in California.—Summer resident of very local distribution in southern California, and west of the Sierran divide north to about Latitude 37 (Dos Palos, Merced Co., June 5, 1916, breeding). Winters sparingly in southern California and casually west to Santa Barbara; formerly to Santa Cruz (Auct. J. G. Cooper).

Authorities.—Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 174 (Sacramento Valley; Ft. Tejon; Colorado R.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 249, pl. 1, figs. 18, 19 (eggs); *Swarth*, Pac. Coast Avifauna, no. 4, 1904, p. 20 (s. Ariz.; habits); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 22 (food); *Dawson*, Condor, vol. xviii., 1916, p. 27 (range in Calif.).

SOME FOLKS are twins. Such being the case, birds, we suppose, have no right to expect exemption from the common lot. The penalty of being a twin consists, of course, in being forever confused, misidentified, and misunderstood. The similarity between *Tyrannus vociferans* and *T. verticalis* is exceedingly close,—so close, in fact, that it is doubtful if a hundred people in California, apart from self-conscious and fully alert bird students, ever stopped to consider that they might be different. Yet the two species are perfectly distinct in plumage and in voice, and somewhat so in habit and disposition. These likenesses and differences, in two related species which are closely associated throughout much of the year, form one of the most fascinating problems of intimate bird study which California offers.

The voice is the key to the difference: Cassin's Kingbird says, *Che bew'*, in a heavy, grumpy tone, whose last flick nevertheless cuts like a whip-lash—*chebeeu'*. This is generically similar, but specifically very different from the evenly accented, and more nearly placid *ber'wick* of the Western Kingbird. The note of greeting or of general alarm in Cassin is a breathless *kuh day' kuh day' kuhday';* or, as I heard a female render it, *kiddoo' kiddoo' kiddoo' kiddoo' kidduck'*. For the rest Cassin is a rather more sober and a much more silent bird than is the volatile *verticalis*. Dr. Cooper[1] testifies that birds of this species are "less lively and quarrelsome in habit";

Taken in San Luis Obispo County

Photo by the Author

A PATRON OF WESTERN UNION

[1] Land Birds (of California), Vol. I., p. 314.

and Bendire[1] adds, "Cassin's Kingbird is neither as noisy nor as quarrelsome as the preceding species, and appears to be more of a mountain-loving bird and to nest at higher altitudes."

As to this last, we can only say that the rule does not appear to hold good in California. Cassin's Kingbird, at the nesting season, barely exceeds the upper limit of the Lower Sonoran faunal zone; and it is not even mentioned in the exhaustive reports on the San Jacinto and San Bernardino mountain regions. It is apparently of very irregular distribution over the two California deserts, and in the lowlands of the San Diego-Santa Barbara region. I have found what I believe to be its local center of abundance in the sparsely timbered valley of the Estrella, in northern San Luis Obispo County, and in the connecting tributaries. Here its close and all but invariable association with *T. verticalis* is worthy of special notice.

Taken in San Luis Obispo County

Photo by the Author

CASSIN KINGBIRD IN LIVE OAK

In this region of scattering oak trees and of stream beds lined with cottonwoods, both birds are exceedingly common. As surely as a pair of oak trees boast some degree of isolation from their fellows, one will be occupied by a pair of Cassin Kingbirds and the other by a pair of Westerns. Or if the trees are only members of a series, next door neighbors will be

[1] Life Histories, Vol. II., p. 250

occupied by these paired doubles; and the group may be separated by an interval of a hundred yards or so from the next quartet. The arrangement is evidently studied, and it must be mutually agreeable, for the two species are upon the best of terms, and I have never seen evidence of jealousy or ill-will on the part of either, though I have camped right under their nests.

Verticalis is evidently the follower, the "copycat," for the Cassins invariably begin nesting first. Most nests are under way by the third week of April (there is one record by Fred Truesdale of a set of five taken at Shandon on the 28th day of March, 1914); while sets of *verticalis* are seldom complete before the 15th of May. Apart from this, there is no constant difference either in the size, composition, or placing of the nest; shape, color, or size of eggs; or in the attitude of the birds toward friends or enemies. Cassin will chase a Raven as far as neighbor Western, and Mrs. Western will applaud the act as heartily (and as unresentedly) as will Mrs. Cassin. That the two strains remain inviolably distinct under such circumstances is either a tribute to the virtue of the birds, or a monument to our own lack of perspicacity in discerning differences or incompatibilities greater than we now suppose to exist.

No. 167

Arizona Crested Flycatcher

A. O. U. No. 453. **Myiarchus magister magister** Ridgway.

Description.—*Adults* (sexes alike): Pileum dresden brown, the feathers darker centrally, the remaining upperparts chiefly olivaceous gray (nearly Saccardo's olive), on back graying, on hind neck and sides of neck, the upper tail-coverts and exposed edges of rectrices pale brownish; tertials and rectrices in superior aspect brownish dusky, the exposed edges of primaries and inner webs of rectrices cinnamon; the wing-coverts broadly tipped and the tertials broadly edged on outer webs with brownish white; chin, throat, sides of neck, and breast, broadly ashy gray; remaining underparts, including axillars and wing-linings, pale yellow (barium yellow). Bill and feet black. Av. length of adult males (skins): 217 (8.55); wing 109 (4.30); tail 100 (3.94); bill 24 (.945); tarsus 24.7 (.97). Females somewhat smaller.

Recognition Marks.—Towhee size; requires careful discrimination from the Ash-throated Flycatcher, *M. c. cinerascens*. It is much larger, and the yellow of abdomen, etc., is both darker in tone and much more extensive.

Nesting.—Not known to breed in California, but probably does so. *Nest:* Placed in old woodpecker hole in sahuaro (giant) cactus or, more rarely, in mesquite tree; a heavy cushion of hair or fur, guarded, almost invariably, by a cast-off snake-skin. *Eggs:* 3 to 5; much like those of *M. cinerascens*, but slightly darker and more heavily marked; almost indistinguishable, save for size, from those of *Myiarchus crinitus*. Av. size 25.4 x 18 (1.00 x .70). *Season:* June.

General Range.—Southern Arizona and southwestern New Mexico, south throughout western Mexico to Oaxaca, Tepic, and Chiapas, migrating in northern portion of range.

Occurrence in California.—One record of two specimens, males, collected by Mrs. May Canfield at Bard, Imperial County, May 17, 1921. Range probably coextensive with the narrowly delimited groves of sahuaro cactus growing upon the west bank of the Colorado River.

Authorities.—**Dickey,** Condor, vol. xxiv., 1922, p. 134 (Bard, Imperial Co.), May 17, 1921, 2 spec.); *Swarth,* Condor, vol. vii., 1905, p. 28 (s. Ariz.; nest and eggs, habits); *Osgood,* Auk, vol. xxiv., 1907, p. 219 (nomencl.).

POORRRRITT grilp ürrr it'! To a birdman in Arizona that is as good as "hands up" from a road agent. We came to attention instantly; but when the bird saw our obedience, self-consciousness overwhelmed him and he fled incontinently. Indeed, modesty is the distinctive vice of this alleged *magister*—at least in May—and he will edge away through the creosote with a most irritating facility. No doubt June and the responsibilities of parenthood give him a temporary courage, for he will not allow his meeker kinsman, *cinerascens*, in the same sahuaro; and he has, beside his own chicks, all the interests of Elf Owls, Gilded Flickers, and vagrant Cactus Wrens to protect. That he is either superstitious or a coward at heart we know from the circumstance of his adding a cast-off snake-skin to the furnishings of his nest. One look at that terrifying emblem and the prowling "inemy," whoever he may be, is supposed to fall over backward in a faint. If said enemy refuses to do so, it is, perhaps, a sign that the burglar alarm is shorted, or worn out, so that it will not crackle ominously. In an eastern orchard where snake-skins were, presumably, scarce, I once found a nest of the Crested Flycatcher, *Myiarchus crinitus*, whose eggs were protected by crumples of stiff tissue paper, the folds of which did not fail to crepitate most valiantly when pressed.

No. 168

Ash-throated Flycatcher

A. O. U. No. 454. **Myiarchus cinerascens cinerascens** (Lawrence).

Description.—*Adults:* Above dull grayish brown changing to clear brown on crown; wings dusky brown, the middle and greater coverts tipped broadly, and the secondaries edged with pale buffy brown or dull whitish, the primaries edged, except towards tips, with cinnamon-rufous; tail darker than back, with paler grayish brown edgings, that of outermost rectrix sometimes nearly white; tail feathers, except central pair, chiefly cinnamon-rufous on inner webs; sides of head and neck gray

ASH-THROATED FLYCATCHER

(slightly tinged with brown) fading into much paler gray on chin, throat, and chest, changing to pale yellowish on breast and remaining underparts; yellow of underparts, strengthening posteriorly, and axillars and under wing-coverts clear (primrose) yellow, exposed inner edges of flight-feathers pale cinnamon. Bill blackish; feet and legs black; iris brown. Length of adult male about 200 (7.87); wing 100 (3.94); tail 92 (3.63); bill 19 (.75); tarsus 23 (.91).

Recognition Marks.—Towhee size; brownish gray above; ashy throat shading into pale yellow of remaining underparts; cinnamon-rufous of tail conspicuous in flight.

Nesting.—*Nest:* A natural cavity or deserted flicker hole, copiously lined with rabbit-fur, wool, hair, or other soft materials. *Eggs:* 3 to 6, usually 4; buffy or creamy as to ground, but heavily marked, chiefly in curious lengthwise pattern, with streaks of chocolate of several degrees of intensity. Av. of 50 eggs in the M. C. O. coll.: 21.4 x 16.2 (.844 x .637). *Season:* May 15–June 15; one brood.

Range of *Myiarchus cinerascens.*—Western United States, Lower California, and Mexico; breeding from the Tropic of Cancer north, diminishingly, to Washington and northern Utah, east to central Colorado; wintering south to Guatemala.

Range of *M. c. cinerascens.*—That of the species, minus the southern half of Lower California (*M. c. pertinax*).

The Ash-throated Flycatcher

Distribution in California.—Common summer resident in Lower and Upper Sonoran life zones, save in the humid coastal strip and the northern tier of counties. Invades Transitional areas as the summer advances. Casual in winter in the Imperial Valley. Rare or casual on the Islands during migrations.

Authorities.—Gambel (*Myiobius crinitus*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1847, p. 157 (Monterey; Santa Barbara); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 266, pl. 2, fig. 3 (eggs); *Nelson*, Proc. Biol. Soc. Wash., vol. xvii., 1904, p. 33 (monogr.); *Van Rossem*, Condor, vol. xiii., 1911, p. 132 (Imperial Valley; winter); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 28 (food).

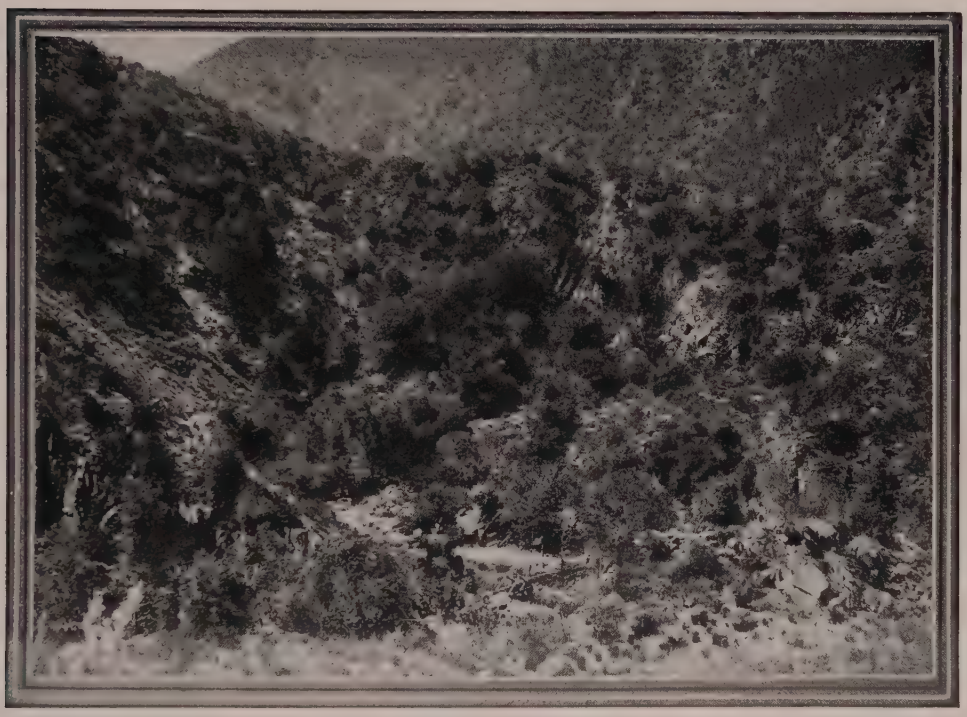
THE ASH-THROATED FLYCATCHER is two birds—or, rather, two birds and a voice. The voice might belong to a third bird, or it might be altogether discarnate, for all one learns of its authorship and connections—at first. One of the birds migrates, openly, shamelessly, and abundantly—none more common. The other of him, or her (the cleavage does not occur along the line of sex difference), having arrived in the neighborhood of the spot called home, is henceforth a furtive creature, moving secretly through the treetops, or keeping to the undershade of the grove, and bearing upon his (or her) conscience a tremendous load, viz., the guilty knowledge of that precise spot called a nest. Not wild horses shall draw the secret forth, nor may the sweet influences of heaven operate to rid the guilty mind of its load.

The voice belongs altogether to the latter bird—or to none. It is chiefly a voice of suspicion,—harsh, elusive, accusing. Its notes are rich in "r's." In fact *r* is about the only predictable quality of the double tone as it shall issue: *Queerp—too-weerp—lookateer;* though once I heard a bird, carefully marked beyond possibility of error,—a bird which said *tu'bick* or *too'vick*, in perfect Meadowlark fashion. Sometimes the *r* is a mere chirp or guttural croak, an intermittent escape of r-steam from a seething chestful of superheated rrr's. If one does catch sight of the bird, standing almost motionless in the shadow, he may witness the transformation wrought by the effort of speech. The foreparts of the bird are jerked irresistibly forward. The sound spills out incontinently—*kuteerp*—and the tankard rights itself again by a compensatory bob of wings and tail. The bird seems to be actuated by an unseen wire; and if the observer catches the rhythm, he may play at pulling the wire himself.

The bird of migration is only shameless because there are so many of him that he cannot hide. Or at least he cannot both hide and rustle breakfast. First birds arrive, southerly, during the last week in April. The breeding contingent immediately takes to cover in the sycamores and live oaks of the canyon bottoms and mesas, thenceforth to play ventriloquist or Raffles. But their fellows, intent on a more northerly

destination, pass in leisurely fashion for at least a month thereafter. Silently they flit from station to station over the boundless chaparral or else plunge into its depths. Any wayside weed, any fence rail, may harbor one, and the aspic cholla of the desert is as good a place as any for the tolerant Ash-throat.

Being privileged to spend the last days of May and the first of



Taken in Riverside County *Photo by the Author*

CHAPARRAL—TYPICAL RANGE OF THE ASH-THROAT

early June on the Farallon Islands in the season of 1911, I witnessed a remarkable arrival of migrants, "bird waves," which had slightly overshot their mark. Some of the Warblers were, frankly, lost; but the Flycatchers, of which there were five species, changed in character from day to day, so that one felt sure that it was only a normal movement abnormally exposed, which he was witnessing. Two Ash-throated Flycatchers were seen on the first day of June, and a number of Olive-sided Flycatchers on the day following. Ash-throated Flycatchers were still passing through the desert near Palm Springs on the 28th of May, 1913.

The Ash-throated Flycatcher

In May or early June, according to altitude, these Crested Flycatchers select some cavity in a tree and line it copiously with soft material, chiefly the hair of animals,—rabbit-fur, cow-hair, deer-hair, and the like. The female does *all* the work, transporting her materials by great beakfuls, while the male dances close attendance and keeps a sharp lookout for enemies. A rubbing-post for cattle yields good returns in hair, while a native tannery, where deer-hair has been accumulating, is treasure trove for the birds. The amount of furnishing depends, of course, upon the size of the "house." If a hollow limb is eight inches across inside, it must needs be filled up at whatever cost; while one authority records a nest behind a sprung bark-scale, which was only two and a half inches in diameter. Knot holes in oak-trees, sycamores, or cottonwoods, at any height up to forty feet, are favorite places. In the more desert portions of the bird's range, holes in mesquite, juniper or iron-wood must do shift; or else, as in the valley of the Colorado, the deserted woodpecker holes in the columns of the giant cactus.

Taken in Riverside County *Photo by the Author*

"I C'N ALMOST REACH 'EM, DAD"
NESTING SITE OF ASH-THROATED FLYCATCHER

Of the Ash-throated Flycatcher as a neighbor, Captain Bendire says,[1] "It seems to be rather quarrelsome and intolerant in its disposition toward other birds, and will not allow any to nest in close proximity; in fact I am inclined to believe that it not infrequently dispossesses some of the smaller Woodpeckers, like *Dryobates scalaris bairdi*, of their nesting sites, as I have found its nests on two occasions in newly excavated holes, the fresh chips lying at the base of the tree, showing plainly that they had only recently been removed."

During the period of incubation, which lasts fifteen days, the female has no need to be tended by the male, and he makes himself very scarce

[1] Life Histories of N. A. Birds, Vol. II., p. 267.

in the neighborhood, although he is probably aware of all that takes place. As for the eggs, they are so snugly bedded in rabbit-fur that the mother may absent herself for hours at a time with impunity, and she is thus perfectly able to do her own fly-catching. At the moment of hatching, however, the male parent becomes all attention, and he takes his full share of responsibility in feeding and tending the young.

The eggs of these Flycatchers, as of the entire Crested Flycatcher group (genus *Myiarchus*, with the closely related *Myiodynastes*), are among the quaintest and most engaging oölogical treasures. As a group they form the most notable, and we may say stubborn, exceptions to the general rule that eggs laid in holes are white, or tend to become so. The eggs of the Ash-throated Flycatcher are of a pinkish buff or cream-color as to ground, heavily marked—spotted or short-streaked in crisscross and longitudinal pattern—with dull red (hæmatite red). The markings are rather finer and less abundant than those of eastern Crested Flycatchers (*Myiarchus crinitus*), and their longitudinal prolongation is never so pronounced; but they belong to the same order of beauty. No clew is at hand to account for the exceptionally rich coloration of these eggs, born to blush unseen in fur-lined caves; and in spite of the universal hole-haunting habits of the birds, the tendency would seem to be toward increased richness and variety in the pigmentation of the egg, rather than away from it.

No. 169

Phoebe

A. O. U. No. 456. **Sayornis phoebe** (Latham).

Synonyms.—Eastern Phoebe. Pewee (name should be restricted to *Myiochanes virens*). Bridge Pewee. Pewit Flycatcher. Phoebe-bird.

Description.—*Adult:* Pileum brownish black, shading on cervix into olive-brown of remaining upperparts; quills and tail brownish dusky; some margining of grayish brown or olive-buffy on greater coverts and secondaries; underparts sordid whitish or dingy greenish yellow, shaded on sides of breast and irregularly across breast with olivaceous; chin with some admixture of dusky, and sides of throat shading. Bill and feet brownish black. Length about 152.4 (6.00); wing 85 (3.35); tail 70 (2.755); bill 14.5 (.57); tarsus 18.5 (.728).

Recognition Marks.—Small sparrow size; general outline and behavior much like that of our Black Phoebe, from which it is readily distinguishable by its dingy olive-brown upper plumage and softly shading underparts—without pure white.

Nesting.—Does not breed in California. *Nest:* A thick-walled cup or bracket of moss and mud, lined with plant-down, fine grasses and horsehair; placed upon beam

or projecting corner of bridge, barn, or outbuilding, or upon ledge of shale-bank, etc. *Eggs:* 4 to 6; white (unmarked), or, rarely, sparsely dotted with reddish brown. Av. size 19 x 14.5 (.75 x .57).

General Range.—Eastern North America; breeding from central Texas and the northern hilly portions of the Gulf States north to Quebec, southern Keewatin, and southwestern Mackenzie; wintering from about the 37th parallel of latitude south to southern Mexico; accidental in California and Cuba.

Occurrence in California.—Accidental. Two records: San Fernando, Feb. 14, 1901; and Moss Landing, Monterey County, March 7, 1913.

Authorities.—Swarth, Condor, vol. iii., 1901, p. 66 (San Fernando Valley, Feb. 14, 1901, one spec.); *Brooks*, Condor, vol. xv., 1913, p. 182 (Moss Beach, near Pacific Grove, Monterey Co., March 7, 1913, one spec.).

WE WERE pretty well fixed for Phoebes as it was—though of course we are glad to welcome all of them. With *Sayornis sayus* and *S. nigricans* already on the ground, *Sayornis phoebe*, represented in California by two "accidentals," completes the muster roll of Mr. Say's birds.

Small wonder that this intrepid flycatcher should wish to prospect our pleasant land. They treat him shamefully in the East. Having lured him North in early March, or even February, by treacherous promises of springtime and harvest of flies, when they hear his first trustful notes, they begin to blow at him with icy breath. They kill his vassal flies at a blast; they mercilessly pelt him with sleet, or bury his promised kingdom under a blanket of snow. He, poor soul, takes shelter under a bridge or a sheltering bank, and says *tsip-tsip*, disconsolately, while he tries to warm his toes. Such of their number as survive this Spartan discipline become the most familiar and confiding of farmyard pensioners; but their plaintive "Phoebe" notes seem always to preserve the recollection of unmerited hardships.

No. 170

Black Phoebe

A. O. U. No. 458. **Sayornis nigricans** (Swainson).

Description.—*Adult:* General color slaty black, paling slightly on scapulars and rump, the greater coverts and secondaries edged with pale buffy brown or whitish; belly and crissum abruptly white (the line of separation between black and white A-shaped); the outer web of outer pair of tail-feathers narrowly white; the lining of wings chiefly white. Bill and feet black; iris brown. *Young birds* are more sooty and have rusty or brownish edgings on wing-coverts, lower back, and rump, and a rusty stain along posterior margin of black below. Length about 165.1 (6.50); wing 91.5 (3.60); tail 80 (3.15); bill 15.5 (.61); tarsus 18.4 (.72). Females average smaller.

Recognition Marks.—Sparrow size; black-and-white coloration; black of breast more extensive than in Junco, and junction of black and white Λ-shaped, instead of square; haunts buildings, bridges, cliffs, etc., and courts prominence; plaintive *tsip* note.

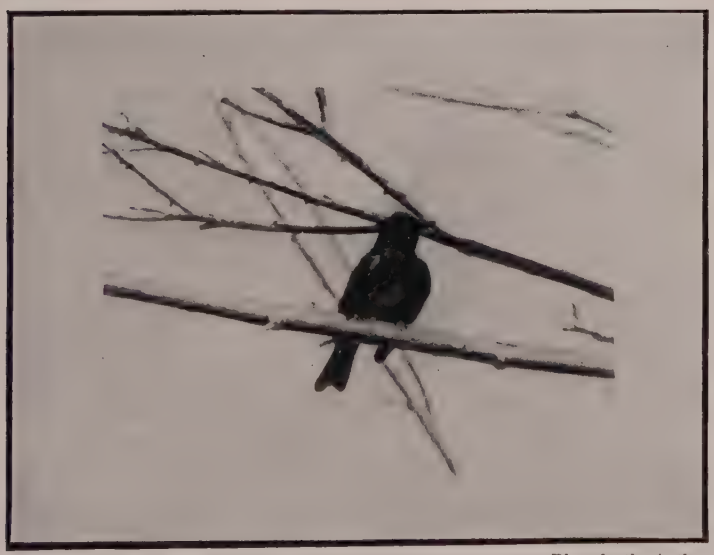
Nesting.—*Nest:* A stout cup or bracket of mud, lined with grasses, horsehair, or other soft substance; cemented to wall or resting on ledge of other projection of bridge, culvert or outbuilding, or else variously disposed at low heights along cliffs and rock-walls overlooking streams. *Eggs:* 4 or 5; white, or occasionally speckled very sparingly with reddish brown. Av. size 18.8 x 14.5 (.74 x .57); index 77. *Season:* March–June; two broods.

General Range.—Resident in Mexico (except the Gulf Coast) and in the Southwestern States, from central Texas westward and north on the Pacific slope to southwestern Oregon.

Distribution in California.—Common resident of Lower and Upper Sonoran zones west of the Sierras, and (sparingly) on the Channel Islands; less common northerly, especially along the humid coastal strip. Occurs in summer along the eastern base of the Sierras, at least as far north as Bishop Creek; and in winter is found sparingly on the deserts and in the Colorado River valley.

Authorities.—Vigors (*Muscicapa semiatra*), Zool. Voy. "Blossom," 1839, p. 17; *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 280, pl., fig. 30 (egg); *Nelson*, Auk, vol. xvii., 1900, p. 125 (syst.; nomencl.); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 38, pl. v. (food); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 61 (San Joaquin Valley); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 65 (s. Calif. islands).

THE TRIM APPEARANCE of this little flycatcher no less than its modest, friendly mien has endeared the Black Phoebe to the most general notice. Black and white are recognized as the colors of gentility, and our Phoebe is punctilious in the matter of clothes. He *always* wears his dress suit, whether his task be that of a mason building a mud house, or of a gallant presenting a butterfly bouquet to his lady love. Nature's gifts are

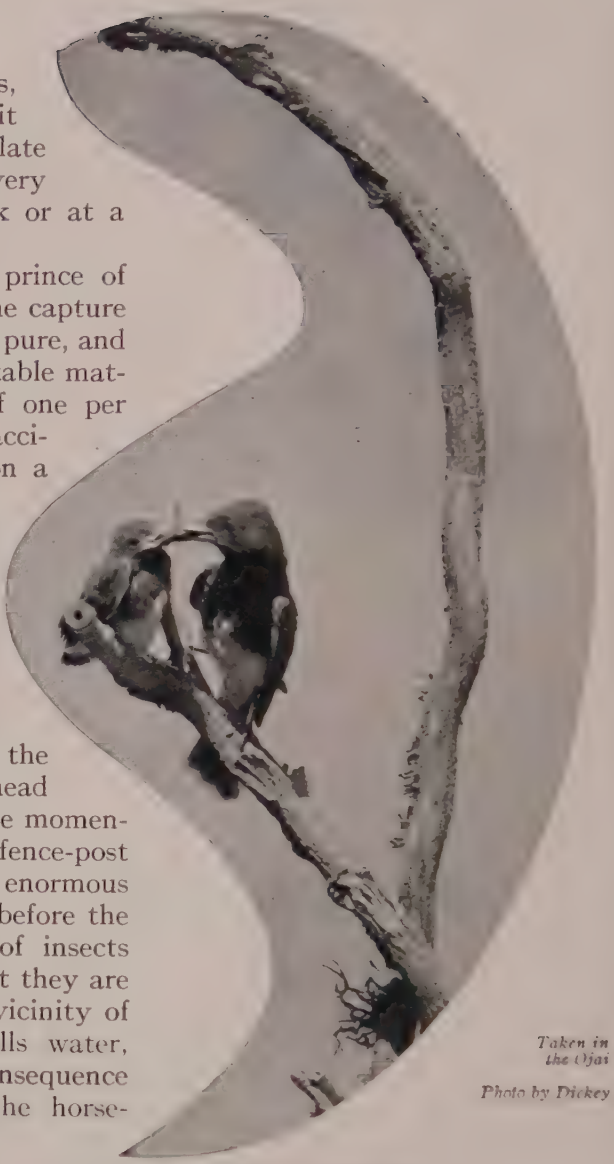


Taken near Santa Barbara *Photo by the Author*

A WINTER PORTRAIT

supplemented by tidy manners, too, and though the black suit must last a season, the immaculate shirt-front is fresh laundered every day beside the running brook or at a wayside watering trough.

The Black Phoebe is a prince of flycatchers. His record for the capture of "animal food" is 99–41/100 pure, and the trifling admixture of vegetable matter represented by 59/100 of one per cent is judged to be chiefly accidental. An insect roosting on a blackberry is likely to be snapped up perch and all; but the only fruit which Phoebe is suspected of taking on purpose is the dainty elderberry. As a flycatcher, then, *nigricans* displays a tireless energy and no little adroitness. When seated, the bird is always turning his head about in quest of game, and the momentary sallies from weed-top or fence-post or bridge-rail represent an enormous consumption of flying things before the day is done. Of the kind of insects taken, it is enough to say that they are chiefly such as frequent the vicinity of water. Anything that spells water, spells insects, and as a consequence Phoebe is found haunting the horse-trough and the tank-house, no less than the stream-side and the fringes of lakes. The farmyard with its lowing cattle and scented by-products offers ideal attraction for flies, and so, for flycatchers. Besides, if the flies are troublesome about the kitchen door, Phoebe will help clear them away if you will let him.



Taken in the Ojai

Photo by Dickey

A PRIVATE ENGAGEMENT

THE LOWERMOST YOUNGSTER SHOWN IN THE SUCCEEDING CUT IS GETTING HIS PORTION

The natural breeding haunts of the Black Phoebe are cliffs or low ramparts overlooking streams. Here in some niche which offers at

least overhead shelter, the birds cement a bracket of mud against the perpendicular wall. They are very clever little masons, and the percentage of failure in adhesion in the use of the Phoebe recipe is decidedly less, I should say, than in the case of the Barn Swallow, whose handiwork Phoebe's so closely resembles. Contrary to the statement of some authors noted for their imaginative powers, the Black Phoebe does not, in my experience at least, use elaborate upholsteries. The nest is somewhat austerely lined with twisted grasses and a few included horse hairs. Eggs to the number of four or five are deposited, pure white in color, save that one or more are likely to be lightly sprinkled or sharply spotted with chestnut. Tyler thinks it is invariably the last egg or eggs laid which are so marked, and wishes that we might find larger sets so as to test the birds' latent powers.[1]

Bridges and culverts meet the exact conditions of the Black Phoebe's requirements even more accurately than stream banks. *Nigricans*, therefore, has well merited the name "bridge pewee" which has so long been applied to its cousin *Sayornis phoebe*. Given running water and freedom from molestation, there is no bridge too humble to boast its attendant pair

Taken in the Ojai *Photo by D. R. Dickey*

A FAMILY GROUP: BLACK PHOEBES

[1] "Some Birds of the Fresno District," Pac. Coast Avifauna No. 9, p. 61, 1913.

Taken at Los Colibris *Photo by the Author*

OUR LOCAL FLY-TRAPPER

of black fairies. Automobiles pass unheeded nowadays, but at the clatter of horses' hoofs the mistress is likely to sally out from under her shelter and to remark, *tsip*, *tsip*, in a very emphatic, if lisping, manner, accompanied by a lively "jetting" of the tail. This single note is still so complex and distinctive in quality that it may be recognized anywhere. Both at nesting time and elsewhen, if in a happy mood, the bird will utter a vivacious *chedee' chedew`*, or *chedeé chedeé chedew`*, the first syllable in rising, the last in falling inflection; and this proper song does duty at scolding-time if the *tsips* are not sufficient.

It is noteworthy that the Black Phoebe does not accept support from below for its nest, as do both *phoebe* and *sayus*, holding it to be more workmanly to glue its handiwork firmly against the side of a timber. This proficiency gives the bird command of the entire underpinning of a bridge, and frequently assures a fortunate degree of inaccessibility. One cannot help wondering, though, how the youngsters are to manage with their first flight with a swift running stream below them and nothing about to offer a foothold.

The plight of the young aspirant is evidently still more serious in the case of those who are reared in the mouth of an old well. For some occult reason an abandoned well is irresistible to the Black Phoebe; and the birds will nest ten or fifteen feet below the brink. A vertical rise of fifteen feet is surely a pretty stiff stunt to propose to a fledgling. As an alternative he has—the bottom. Scarcely less foolhardy seemed the attempt of a pair on Santa Cruz Island, whose nest overlooked the sea beach at a point which was impassable at high tide. The place was several times drenched with spray during our brief acquaintance with it, but I dare say the brood weathered through somehow. It is of

such attempts that variations—and heroes—are bred.

Without doubt, there is a considerable re-sorting of population as winter approaches. Phoebes which have summered in the foothills fall back upon the lowlands. Northern colonists deploy over the Colorado Desert or drop into the comfortable depths of the Colorado River Valley, where they have never been known to breed. Outlying bridge-tenders are driven into the shelter of farmhouses, or else take refuge in villages; and thus, oftentimes, a welcome relationship, broken off by the cares of summer, is resumed as between man and bird. "Swat the fly" is the motto of the careful housewife. What more suitable, therefore, than to have a cheerful and serviceable colored person to attend to the same duty, outside!

No. 171

Say's Phoebe

A. O. U. No. 457. **Sayornis sayus** (Bonaparte).

Synonyms.—Say's Pewee. Western Phoebe.

Description.—*Adults:* General color drab (grayish brown to dark hair-brown, darker on pileum and auriculars, shading through upper tail-coverts to brownish black of tail; wings fuscous, the coverts and exposed webs of tertials edged with lighter grayish brown; underparts cinnamon-buff, clear on belly and crissum, shaded and blended with drab on sides of breast, paler, cinnamon-drab, on throat; axillars and lining of wings light buff or cream-buff. Bill and feet black; iris brown. *Young birds* are more extensively fulvous, and are marked by two cinnamomeous bands on wings (formed by tips of middle and greater coverts). Length of adult male about 177.8 (7.00); wing 105 (4.14); tail 82 (3.23); bill 15.7 (.62); tarsus 20 (.79). Female averages smaller.

Recognition Marks.—Sparrow size; drab coloring; cinnamon-colored belly; melancholy notes; frequents barns and outbuildings, or cliffs.

Nesting.—*Nest:* Composed of dried grasses, moss, plant-fibers, woolly materials of all sorts, and hair; placed on ledges, under eaves of outbuildings, under bridges, or on cliffs. *Eggs:* 3 to 6, usually 5; dull white, very rarely dotted with reddish brown. Av. of 50 eggs in the M. C. O. colls.: 19.6 x 15 (.77 x .59); index 76. Range 17.8-21.3 by 14.2-16 (.70-.84 by .56-.63). *Season:* Varying with locality—March–June; two broods.

General Range.—"Western North America. Breeds from central Alaska, northwestern Mackenzie, northeastern Alberta, southeastern Saskatchewan, and central North Dakota south to Lower California, Arizona, southern New Mexico, western Iowa, and western Kansas; winters from central California, southern Arizona, southern New Mexico, and central Texas to southern Lower California, Vera Cruz, and Puebla; accidental in Wisconsin, Missouri, and Massachusetts" (A. O. U. Com.). Rare or wanting in summer in most of the Pacific coastal region.

SAY'S PHOEBE

Distribution in California.—A common breeding bird of the Lower Sonoran and of the arid portions of the Upper Sonoran life zones; occurs broadly as a breeder throughout the southeastern desert and semi-desert regions, north to Mono Lake; in the southern portion of the San Joaquin valley, and on the inner coastal ranges of Santa Barbara, San Luis Obispo, Monterey, and San Benito counties, north (at least) to Paicines; also, more sharply localized, in the mountains of the San Diegan district; the northern portion of the Sacramento valley and the northeast plateau region. Winters east and west of the Sierras from Mono Lake and the Sacramento Valley

southward, abundantly in the San Diegan district, more sparingly on the islands. Never reported from the humid coastal strip.

Authorities.—Gambel (*Tyrannula Saya*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1847, p. 156 (Calif.); *Fisher*, N. Am. Fauna, no. 7, 1893, p. 61 (Owens Valley, Death Valley, etc.; occurrence, habits); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 276, pl. 1, fig. (eggs); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 36 (food); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 149 (Colorado Valley).

Taken in Kern County *Photo by the Author*

GENERAL VIEW OF NESTING HAUNT

A GENTLE MELANCHOLY possesses the soul of all Pewees, and *Sayornis sayus* is the most desponding of the lot. It is impossible to guess what ancestral hardship could have stamped itself so indelibly upon any creature with wings. Perhaps the bird is haunted by the memory of that northern Eden once obliterated by the ice-sheet. Perhaps alkaline waters are bad for little livers. I do not know. Your guess is as good as mine. *Choooory kuteéw*. This "choory" note, heard on a gray day in December, puts one in the same mental attitude as that induced by the modest mewing of a cat. I want to stop and stroke its head, and say in sympathetic falsetto, "Poor little kittens!"

In keeping with its ascetic nature the Pewee haunts open, solitary places, drear pastures tenanted by mullein stalks, bleak hillsides swept by wintry gales, dull dobe cliffs with their solemn, silent flutings. Or,

Taken in Kern County *Photo by the Author*

WATCHING THE PHOTOGRAPHER
AS HE TAKES THE PRECEDING VIEW

since misery loves company, she ventures upon some half-deserted town-site, and voices in unexpectant cadences the universal yearning for green things and cessation of wind. Or, better still, she attaches herself for the season to some farmhouse, culls wintry flies, and roosts disconsolate in the shelter of a cornice—*choooory—choooory—kuteéw*.

Say's Pewee, for all its depressed spirits, is an active bird. Taking station on a fence-post or weed-stalk, it waits for passing insects, and sallies out after them with good form and despatch. If local trade is dull, the bird makes fluttering excursions over the field, snapping right and left at humble quarry, and returning to jet the tail and render mournful thanks. Insects constitute the bird's exclusive diet, save in winter, when, under the spell of adverse weather, dried berries and seeds are sometimes taken. Flies, butterflies, moths, wasps, and the smaller wild bees (not the honey bee), are the staples of diet; but beetles, and especially ground beetles, are largely sought. This flycatcher, therefore, more than any other, lights upon the ground to seize its prey, or else hovers aloft in an attitude of critical inspection. Say's Phoebe, in common with a few other flycatchers, has the power of ejecting indigestible elytra and leg-sheathings in the form of pellets.

In their winter haunts in the southern lowlands, these birds are quite solitary. The males appear to depart in spring some days in advance of the females, for no better reason, perhaps, than that the reproductive instinct first excites the masculine imagination. Courtship is an animated affair in spite of the melancholy proclivities of the bird; and the male achieves a sort of song by repeating *ku-tew's* rapidly, on fluttering wing. Besides this, in moments of excitement, both birds

cry *Look at 'ere, look at 'ere, look at 'ere* with great distinctness.

Eggs are first laid by the 10th of April, and usually at least two broods, sometimes three, are raised in a season. At the Point of Rocks, in northwestern Kern County, I found a nest containing young about ready to fly, on the 4th of April, the egg complement having been deposited in this instance by the 10th of March. In the natural state these Pewees nest about cliffs, at moderate heights, and in shallow caves. In selecting a site, they show a decided preference for a cliff which enjoys the protection of nesting Prairie Falcons. In one instance a pair of these birds nested within ten feet of a pair of Barn Owls. The association might have been accidental, or the Owls' kitchen-midden of gopher-skulls, hard by, might have offered inducement to flies, and, so, to Flycatchers. A stout bracket of twigs, weed-fibers, lichens, and other soft substances, is constructed, and a luxurious lining of wool and hair is supplied; but the whole must be artificially shielded by some projecting tooth or facet of stone, or covered frankly by the shelter of an overarching roof.

Taken in Santa Barbara County
Photo by the Author
ON LOOKOUT

Latterly, bridges, culverts, and outbuildings are being more and more utilized by Say's Pewees as nesting sites. Especially attractive to this shelter-loving bird are deserted shacks. Never shall I forget a monumental structure, full eight inches in height, which was placed on a shelf in an old windowless shack on the "Garden of Eden" townsite. This forlorn memorial of human folly on the edge of the Colorado Desert seemed an especially fitting place for this married muse of melancholy. Three whacking big eggs gave promise of future Says, a promise which we did not thwart.

The author in taking his first set of Say Pewee eggs selected a nest which could be reached only by canoe, one

placed on the south wall of a northern lake. The floor of an old Cliff Swallow's nest, placed in a shady niche at a height of some twelve feet, formed the support of Pewee's accumulations. The cliff was perfectly straight, but by dint of half an hour's work piling lava blocks and securing footholds, with the aid of a double-bladed paddle he succeeded in reaching the nest. Requiring the use of both hands in descent, he placed the four fresh eggs in his hat, and the hat in his teeth, reaching the ground safely and depositing the hat carefully. Tired out by the exertion he flung himself down on the narrow strip of shore and rested. Then noting the rising wind, he sprang up, seized coat and hat and—Oh! did something drop?!! Yes, gentle reader, the eggs were in it,—but only one was smashed. Only one! As perfect the arch without its keystone as a "set" of eggs with the guilty consciousness of one missing!

The experience of a companion, Mr. D. E. Brown, on the same lava wall was even more agitating. Noting some fresh-looking straws projecting from a vapor hole about twelve feet up, he surmised Say's. He climbed up the practically perpendicular wall with such difficulty that he was minded to explore the cranny above with his upstretched hand. His good angel, however, counseled examination by eye and the bird-nester drew himself up so that he could command a full view of the nest —and of a rattlesnake coiled at nine inches. The reptile had just dined upon the contents of the nest and was prepared to vindicate his course of action. Fearing to move a muscle visibly lest the snake strike upon the instant, Brown coolly reached his unseen hand for his revolver, brought it up and dropped upon the moment of the explosion. The rattler was in the act of striking, for he leaped clear of the hole as Brown fell, and that although he had five bullet holes in his writhing carcass.

No. 172

Western Flycatcher

A. O. U. No. 464. **Empidonax difficilis difficilis** Baird.

Synonym.—Western Yellow-bellied Flycatcher.

Description.—*Adults:* Above and on sides of breast olive or brownish olive (nearest olive citrine); a lighter shade of same color continued across breast; remaining underparts light yellow (between baryta yellow or barium yellow and primrose); sordid on throat and sides, clearest on belly; bend of wing pale yellow; a faint yellowish eye-ring; axillaries and lining of wings paler yellow; middle coverts and tips of greater coverts, continuous with edging of exposed secondaries, yellowish gray, forming two more or less conspicuous wing-bars. Bill brownish black above, yellow below; feet

and legs brownish dusky; iris brown. *Young birds* are browner above and paler below; wing-bars cinnamon-buffy (and not certainly distinguishable in color from young of *E. trailli brewsteri*). Length 127-139.7 (5.00-5.50); wing 67 (2.64); tail 57 (2.24); bill 12 (.47); width at nostril 5.4 (.21); tarsus 17 (.67).

Recognition Marks.—Warbler size; characterized by pervading yellowness. Adults always more yellow than *E. trailli brewsteri*, from which it is not otherwise certainly distinguishable (save by note). Note: a soft *pis-wit;* a woodland recluse. Really the easiest, because the most common of this difficult group.

WESTERN FLYCATCHER

Nesting.— *Nest:* Chiefly of moss, lined with fine bark-strips, rootlets, or fine grasses; placed in any convenient cranny, but chiefly in well-sheltered niches of banks or upturned tree-roots, or broken stubs near streams. *Eggs:* 3 or 4, rarely 5; pale creamy white, or buffy, spotted and marked, chiefly in loose wreath, or rarely blotched with light reddish brown (pecan-brown to mikado brown, or onion-skin pink to orange-cinnamon). Av. size 16.8 x 12.95 (.66 x .51). *Season:* April–June; one or two broods.

Range of *Empidonax difficilis.*—Western North America south to southern Mexico.

Range of *E. d. difficilis.*—Breeds from southeastern Alaska (Glacier Bay), southeastern British Columbia, Montana, and the Black Hills in Dakota, south to western Texas and southern California; winters in Mexico.

Distribution in California.—Early migrant nearly throughout the State. Common summer resident in Upper Sonoran and Transition zones, chiefly west of the Sierran divide. Only records of occurrence in summer east of the Sierran divide

appear to be the following: Warner Mountains (Grinnell) [Not found there by author in 1912]; Mammoth Camp, Mono County, June 7, 1919 (author). Most common in humid coastal strip from San Francisco Bay south; and in foothill sections of San Diego district. Found on floors of higher Sierran valleys in midsummer, and probably indulges in some altitudinal "migration" (Vidette Meadows, alt. 9700, July 5, 1913; Kenawyers, July 8, 1913, *breeding;* Dougherty Meadows, alt. 9700, July 15, 1913). Casual (?) in San Diego district in winter.

Migrations.—Spring arrivals: Santa Barbara, March 16, 1911; Mar. 16, 1912; Mar. 21, 1913; Mar. 20, 1915; Mar. 15, 1916.

Authorities.—Gambel (*Tyrannula pusilla*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1847, p. 156 (Los Angeles); *Bendire,* Life Hist. N. Am. Birds, vol. ii., 1895, p. 298, pl. ii., figs. 24, 25 (eggs); *Oberholser,* Auk, vol. xiv., 1897, p. 300 (*Empidonax insulicola,* new sp.; type locality, Santa Rosa Island); *Grinnell,* Univ. Calif. Pub. Zool., vol. v., 1908, p. 77 (San Bernardino Mts.; habits, association, nest); *Beal,* U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 55 (food).

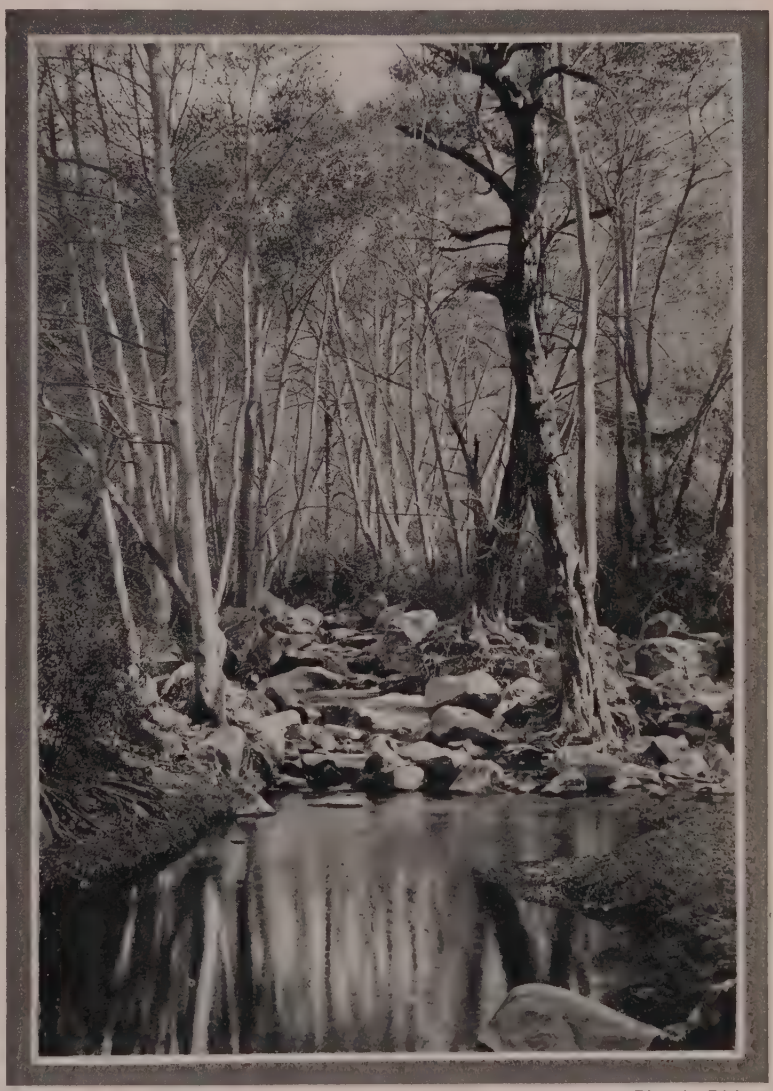
PLEASE OBSERVE the scientific name, *difficilis,* that is, "difficult." There is a delicate irony about the use of this term as a distinctive appellation for *one* of the "gnat kings"; for, surely, the plural, *Empidonaces difficiles,* would comprehend them all. As a matter of fact, *difficilis* is the least difficult of the group, not alone because it is the most widely distributed and familiar in the West, but because its under-plumage is definitely tinged with yellow, and its notes preserve a fairly distinctive character.

The Western Flycatcher is the first of the *Empidonaces* to arrive in the spring, the local breeders appearing in the San Diegan district as early as the 16th of March; and on the northern borders of the State some two weeks later, when the yellow-green racemes of the Large-leafed Maple (*Acer macrophyllum*) are first flung out to the breeze. The little fay publishes his arrival at once, but so closely does he keep to the shady depths of the trees, and so perfectly does he blend in with the tender hues of new foliage, that we hear him twenty times to once we see him.

The notes are little explosive sibilants fenced in by initial and final "p" or "t" sounds. If one prints them, they are not at all to be vocalized, but only whispered or hissed, *psssecit, psswit,* or *piswit.* Other variations are *sé a-wit,* slowly and listlessly; *psur-wit,* pensively; *aweé ut,* petulantly; and *cleotip,* briskly; *kushchtlip,* a fairy sneeze in Russian. One becomes familiar with these tiny cachinations, and announces the Western Flycatcher, unseen, with some degree of confidence. There is, besides, a sharp metallic *chup* of anxiety heard at nesting time, which is sparrow-like in vigor and quite out of keeping with anything else Empidonacine.

The Western Flycatcher inhabits the deeper woods of lower and moderate levels, chiefly west of the Sierras, though it has its acknowledged centers of abundance in the San Diegan district, and in the humid coast province up to and including the San Francisco Bay region. It is rather partial, also, to watercourses, and especially such as flow through shady retreats or past mossy grottoes. Abundant water and shade lure it to the heart of the Sierras, but only along the valleys of the major streams at altitudes of 5000 or 6000 feet. On the other hand, it is interesting to note an increasing fondness on the bird's part for civilized shade. Given shade, the little fellow will invade the most pretentious estates, or push his way into the confines of cities. The crannies of porches offer him welcome shelter, and he is nowise intolerant of humans, if only they will leave him to his own devices.

Difficilis is typically the gleaner of the middle forest. Though moving about in the shade, he selects a perch devoid of foliage, where he can have a local fair-way. Quiet, for the most part, when settled, he nevertheless shifts position every twenty seconds or so—goes the rounds in search of the lesser hymenoptera and the



Taken on the Sespe *Photo by Dickey*

A HUMBLE HAUNT OF THE WESTERN FLYCATCHER

flies, which together make up two-thirds of his living. Of course these are secured by tiny sallies through the air, and each successful foray is likely to be marked by a self-satisfied shake of the wings when the bird has regained his perch. Birdikins never seems to tire of this sportive gastronomic quest, and we suppose that the flavor of *Hippodamia convergens* (that's a beetle) must be quite equal to pompano or sand-dabs; while the satisfaction of landing *Diabrotica soror* is like bringing a tuna to gaff. Wasps, too, are no mean antagonists, but so relentless is the warfare *difficilis* wages against them, that his older children are fattened up on an almost exclusive diet of wasp meat.

ken in Santa Barbara
oto by the Author

I'M WATCHING YOU, SIR!
FEMALE WESTERN FLYCATCHER, RECENTLY FLUSHED

The Western Flycatcher is a most catholic nester. It builds almost always a substantial cup of twigs, grasses, and hemp, lined with grass, hair or feathers. The outside is usually plentifully bedecked with moss, or else the whole structure is chiefly composed of this substance —not, however, unless the color-tone of the immediate surroundings will permit of it. In position it varies without limit. We find nests sunk like a Solitaire's in a mossy bank, or set in a niche of a rocky cliff, on logs, stumps, or beams, in a clump of ferns, or securely lodged in a fir tree at a height of forty feet. One I found in a swamp was saddled on the stem of a slanting vine maple without a vestige of cover other than that afforded by

the general gloom. At Kenawyer's, deep in the Sierras, I found an exquisite nest with scarcely a trace of "skirts" showing, tucked between two ridges of bark on the bole of a great shaggy pine tree. Near Tacoma (Washington), a pair of these birds filled up and occupied a cavity from which a set of Gairdner Woodpecker's eggs had already been taken. Near Santa Barbara a pair occupied a hand-sized niche in a solid stone wall from which an Auburn Canyon Wren had just led her brood. Indeed, Woodpeckers, Phoebes, House Wrens, Winter Wrens, and Canyon Wrens, are all mentors of this docile bird, *difficilis*. Another "Western" found a set of bridge-timbers so much to her liking that she built three nests, just alike, on adjoining beams. She laid two eggs each in two of them, but raw weather intervened and we could not learn whether she meant to sit on two nests at once.

Taken in Fresno County *Photo by the Author*

A HUMBLE BIRD MAY HAVE GRAND NEIGHBORS
HAUNT OF THE WESTERN FLYCATCHER: SOUTH FORK, KINGS RIVER

Two broods are the rule in the southern part of the bird's range; one elsewhere. Near Santa Barbara I have found fresh eggs on the 30th of April, and others heavily incubated on the 3rd of May. June sees a second crop here; but "May or June" is the nearest we can predict of those who nest but once. Eggs to the number of three or four, rarely five, occupy the dainty cup provided. These are of a dull creamy white color, spotted and blotched rather lightly, with cinnamon brown and pinkish buff, easily distinguishable from all others, save those of the Brewster Flycatchers.

The male does not dance a close attendance upon his mate while she is sitting, but I believe he is always within call. Indeed, I am sure that he oftenest keeps his mate advised of the approach of danger by that penetrating *chup* of which we have already spoken. Possibly the male shares the duties of incubation, as Mrs. Myers supposes.[1] At any

[1] Harriet Williams Myers in "The Condor," Vol. XIII., May, 1911, p. 89.

rate, he is the soul of devotion from the moment the chicks are hatched, and he has need to be, for they are voracious eaters. Professor Beal[1] saw a nestful of young Flycatchers fed twenty-four times in a single hour—336 times in a day. Expert service that, and no time for tips!

No doubt the perspiring parents (but birds don't *really* perspire) consider themselves sufficiently rewarded. They have a better opinion of their youngsters than I have, for of all bumptious youth, young Westerns are to me among the most exasperating. Instead of being tender, they are implacable. They have to very perfection that infantile frown which mars the looks of so many baby birds, giving them an appearance of preternatural gravity and cynical aloofness instead of beaming innocence. Would you soothe them with a finger—they first bristle, then cower. These are bad tokens, for as at a preconcerted signal they burst from cover like a bevy of partridges, and hasten to their several fates. Ah me! how many a pathway and how many a summer stroll has been saddened by these wayside explosions—premature and pitiful, and beyond repair!

No. 173

Brewster's Flycatcher

A. O. U. No. 466. **Empidonax trailli brewsteri** Oberholser.

Synonyms.—Little Flycatcher. Little Western Flycatcher.

Description.—*Adults:* Above brownish olive (Saccardo's olive to light brownish olive), clearest on back and rump; head and neck darker by reason of mesial dusky; wings dusky, the coverts and exposed inner secondaries broadly tipped with olive or pale olive-gray; tail dusky with some olivaceous skirting; underparts basally whitish or sordid whitish, the sides of neck heavily and the breast more lightly shaded with olive-gray; belly and crissum, or at least the flanks, more or less tinged with pale yellow (extreme examples are nearly as bright as *E. difficilis*, but others show the barest trace of yellow); wing-linings pale yellow; lores light gray to whitish; an inconspicuous eye-ring olive-gray. Bill brownish dusky above, lilaceous (in life) or whitish below; iris hazel; feet brownish black. *Young birds* are browner above, and have cinnamon-buffy wing-bands. Length about 139.7 (5.50); wing 70 (2.76); tail 57 (2.25); bill 12.5 (.49); width at nostril 6 (.24); tarsus 16.5 (.65).

Recognition Marks.—Warbler size; *brownish* olive coloration; not so yellow below as preceding species; brush-haunting habits; note a smart *swit' choo.*

Nesting.—*Nest:* A rather bulky but neatly turned cup of plant-fibers, bark-strips, grass, etc., carefully lined with fine grasses; placed 3 to 10 feet up in crotch of bush or sapling of lowland thicket or swamp. *Eggs:* 3 or 4; pale creamy white, sharply but sparingly spotted, chiefly about larger end, with chocolate or dark reddish brown. Av. size 17 x 12.95 (.67 x .51). *Season:* June; one brood.

Range of *Empidonax trailli.*—North America, south in winter to Central America and Colombia.

[1] Food of Our More Important Flycatchers, Biol. Surv. Bull. No. 44, p. 58, 1912.

Range of *E. t. brewsteri.*—Western North America. Breeds from southern British Columbia south to southern California and northern Mexico, and east, centrally, to Ohio. Winters in Central America and south to Columbia.

Distribution in California.—Breeds locally in the brushy riparian association of foothill streams and broader valleys, from the lower levels up well into Transition zone. Found sparingly in the deeper valleys of the high Sierras and on both slopes. Abundant during spring migrations, at the lower levels; common in late summer at the higher levels, both as a vertical and an autumnal return migrant.

Authorities.—Baird (*Empidonax pusillus*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 194 (Ft. Tejon); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 305, pl. 11, figs. 28, 29 (eggs); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 60 (food); *Ingersoll*, Condor, vol. xv., 1913, p. 83 (destruction of nests); *Hanna*, Condor, vol. xx., 1918, p. 211 (parasitized by cowbird); *Oberholser*, Ohio Jour. Sci., Jan., 1918, p. 53 (nomencl.; the name *brewsteri* applied to the western subspecies).

DISCRIMINATION is the constant effort of those who would study the *Empidonaces*, the Little Flycatchers. Comparing colors, Brewster's gives an impression of brownness, where the Western is yellowish green, Hammond's blackish, and Wright's grayish dusky. These distinctions are not glaring, but they obtain roughly afield in a group where every floating mote of difference is welcomed. Brewster's Flycatcher, moreover, is a lover of the half-open situations, bushy rather than timbered, of clearings, low thickets, and river-banks. Above all, it is wedded to the lesser willows, *Salix flavescens*, *S. lasiolepis*, *S. sessilifolia*, and the rest. Unlike its congeners, it will follow a stream out into the desert, if only a few willows or cottonwoods will keep it company; and the willow stubs which border the Colorado River are as sure to hold these chaps as are the wastes tributary to the Santa Ana, San Gabriel, and the Santa Clara rivers. In like manner, Brewster's Flycatchers will stoutly follow the lithe charmers to the heart of the Sierras, though not often to altitudes above 6000 or 7000 feet. In June, 1915, I found them nesting in the Yosemite Valley near Camp Ahwahne, in company with White-crowned Sparrows and Lincoln Sparrows; and in July, 1913, a pair nested in the Simpson Meadows, altitude 6000, on the Middle Fork of the Kings River, along with such "Boreal" species as Thick-billed Sparrow, Sierra Junco, and Townsend Solitaire. But here it had a willow hummock in a grassy bog exactly to its taste. The highest elevation at which I have ever found this species breeding is at Mammoth Camp, in southern Mono County, at an elevation of 8000 feet.

Brewster's Flycatcher is a tardy migrant, for it arrives in Los Angeles County not earlier than the 1st of May, and does not reach certain northern stations before June. When it does come, however, it wastes no time moping about, but takes prompt possession of everything in sight in the name of Hunger and the God of all little Tyrants. This

particular tyrant is restless, energetic, and pugnacious to a fault. It posts in conspicuous places, the topmost twig of a ceanothus, a willow, or an alder, making frequent outcries if the mood is on, and darting nimbly after passing insects. During the nesting season it pounces on passing birds of whatever size, and drives them out of bounds. It is not always so hardy in the presence of man, and if pressed too closely will whisk out of sight for good and all.

The notes of the Little Flycatcher, as it used to be called, are various and not always distinctive. The best-known one, and that which most accurately sums up the energy of its nature, is *switchoo, sweéchew*, or, unblushing, *zweébew, zweébew, zzweet*. Other notes, delivered sometimes singly and sometimes in groups, are *pisoó; swit' oo, sweet, swit' oo; swee, kutip', kutip'; hwit*, or *hooit*, softly.

Nesting begins late in May, and fresh eggs may be expected from June 1st to about the 4th of July. Nests are placed characteristically in upright forks of willows, elderberry bushes, roses, etc. They are usually compact and artistic structures of dried grasses, hemp (the inner bark of dead willows), and plant-down; lined with fine grasses, horse-hair, feathers, and other soft substances. Not infrequently the nests are placed over water; and low elevations, say two or three feet from the ground, appear to prevail.

Incubation lasts only twelve days, and the babies require as much more time to get a-wing. Thereafter the family begins to ascend the valleys; and by August they are invading the nurseries of their mountaineer cousins, *Empidonax wrighti*. The summer vacation is an ancient and honored institution in California; and the birds held summer Chautauquas on the slopes of Mt. Whitney before our ancestors scalped Indians or smoked their seductive weed.

No. 174

Hammond's Flycatcher

A. O. U. No. 468. **Empidonax hammondi** (Xantus).

Synonym.—Dirty Little Flycatcher.

Description.—*Adult:* Above olive, brightest (buffy olive or dull citrine) on rump, shading to olive-gray on foreparts,—color continued on sides, throat (where paler), and breast well down, only slightly paler than back; remaining underparts yellow-tinged in various degrees, usually more or less sordid; pattern and color of wing much as in preceding species; outermost rectrix pale on outer web. Bill comparatively small and narrow, *blackish* above, lighter but very variable below. *Young birds* present a minimum of yellow below, and their wing-markings are buffy instead of whit-

ish. Length about 127 (5.00); wing 71 (2.80); tail 58 (2.29); bill 10.5 (.41); breadth of bill at nostril 4.6 (.18); tarsus 16 (.63). Females average a little smaller.

Remark.—Ridgway recognizes two plumage "phases" of this species, a white-bellied and a yellow-bellied; but a series of 66 examples, culled from everywhere, fails to support this theory. There is not, in fact, one-quarter as much variation in this regard as in the preceding species, *E. trailli brewsteri*, whose differences Ridgway rightly neglects.

Recognition Marks.—Warbler size; the smallest of the five California *Empidonaces*, and possibly the most difficult (where all are vexing); olive-gray of plumage gives impression of blackish at distance; the most sordid below of the Protean quintette; nests high in coniferous trees; eggs *white*.

Nesting.—Not certainly known to breed in California. *Nest:* A neat cup of fir-twigs, grasses, and moss, lined with fine grasses, vegetable down, and hair; placed on horizontal limb of fir tree at considerable heights. *Eggs:* 4; pale creamy white, unmarked. Av. size 16.5 x 12.7 (.65 x .51). *Season:* June; one brood.

General Range.—Western North America. Breeds from southeastern Alaska, southern Yukon, and central Alberta, south at least to Oregon and Colorado. Winters in Middle America.

Distribution in California.—After *E. griseus*, the most elusive and difficult of the *Empidonaces*. Fairly common spring migrant at the lower levels; less common during fall migrations, and then chiefly in the mountains. The species certainly does not breed in southern California (A. O. U.), and there seems to be no indisputable evidence of its breeding anywhere within the limits of the State.

Authorities.—Xantus (*Tyrannula hammondii*), Proc. Acad. Nat. Sci. Phila., vol. x., 1858, p. 117 (orig. desc.; type locality, Ft. Tejon); *Brewster*, Auk, vol. vi., 1889, p. 88 (relationship to *griseus* and *obscurus*); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 315, pl. 11, fig. 32 (egg); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 64 (occurrence in s. Calif.); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 66 (Santa Barbara Ids.).

THE GREATEST confusion still exists in literature regarding the habits and distribution of the members of the genus *Empidonax*. As a student of some twenty-five years' standing, and not unversed in experience of any of these little "gnat-kings," the author may, perhaps, confess with as good a grace as any, that there are no *infallible* tests by which the western species may be distinguished by the eye alone, out of hand. This is not saying that given the appropriate local setting, one may not guess right in nearly every instance, even where breeding ranges overlap. The notes, too, are fairly distinctive, and would probably prove absolutely so if we knew them well enough. But however proficient one may become in "sensing" the identity of a resident bird, sight records of migratory *Empidonaces* are (save in the case of *difficilis*) practically valueless. And there are nine full species of these charming enigmas in the United States, with eight more in Mexico. How we should love to be shut up with all seventeen at once!

Hammondi is the western analogue of *minimus*, the well-known Least Flycatcher of the East. It has not, however, achieved any such

distinctness in the public mind as the "Chebec," nor is it likely to do so. While it is common during migrations both east and west of the Sierras, and more broadly in southern California, its appearance at these seasons lacks character, and its notes are seldom heard. And in spite of numerous "records," Dr. Grinnell's conclusion[1] carries conviction: "Of the many records of the breeding of this species along the Sierras,

Taken in the Tehipite *Photo by the Author*

THERE ARE SUPPOSED TO BE HAMMOND FLYCATCHERS IN THESE MOUNTAINS, BUT THEIR PRESENCE, LIKE THE MOUNTAINS THEMSELVES, IS SHROUDED IN MYSTERY

not one has been authenticated, though a few remain untested." The truth is that the species is much more northern in its breeding range than it was supposed to be, and somewhat sporadic in its appearances at that.

In its summer home, in Oregon and Washington, Hammond Flycatchers may be locally very common. I have seen twenty in the course of a morning's walk in early June. Fir groves, the edges of clearings, bush-clad hillsides with fallen trees scattered about, the timbered banks of streams, these are favorite places of residence. Its smart, slightly querulous notes, *sewick'* or *cleo tip'*, are uttered frequently from any

[1] Distributional List of the Birds of Cal., Pac. Coast Avifauna, No. 11, 1915, p. 92.

half-prominent station, and they may occasionally be heard in the depths of the forest—in marked contrast to the lazier, drawling tones of the Western (*E. difficilis*). I have one down also for an emphatic *sweé chew*, but the chances are ten to one that a Brewster Flycatcher slipped in on me unawares.

In the summer of 1906 Mr. Bowles and I found these flycatchers nesting on a fashionable hillside section of Spokane. In two instances the birds were building out in the open, after the fashion of the Western Wood Pewee (*Myiochanes richardsoni*): one on the bare limb of a horse-chestnut tree some ten feet from the ground; the other upon an exposed elbow of a picturesque horizontal limb of a pine tree at a height of some sixty feet. A few miles further north we located a nearly completed nest of this species on the 20th of May, and returned on the 1st of June to complete accounts. The nest was placed seven feet from the trunk of a tall fir tree, and at a height of forty feet. The bird was sitting, and when frightened dived headlong into the nearest thicket, where she skulked silently during our entire stay. The nest proved to be a delicate creation of the finest vegetable materials, weathered leaves, fibers, grasses, etc., carefully inwrought, and a considerable quantity of the orange-colored bracts of young fir trees. The lining was of hair, fine grass, bracts, and a single feather. In position the nest might well have been that of a Wood Pewee; but, although it was deeply cupped, it was much broader, and so, relatively flatter. The four fresh eggs which it contained were of a delicate cream-color, changing to pure white upon blowing.

No. 175

Wright's Flycatcher

A. O. U. No. 469. **Empidonax wrighti** Baird.

Synonym.—Little Gray Flycatcher.

Description.—Similar to *E. hammondi*, but averaging slightly larger; grayer and with less of olivaceous above; lighter and less extensively gray-washed below; the web of outer rectrix paler gray; the first outermost primary *shorter* than the 6th; the bill larger and decidedly broader. *Adult* (gray phase): Above dull bluish gray or grayish dusky, faintly olivaceous on back and sides; throat and breast pale gray to whitish, with admixture of ill-concealed dusky; remaining parts, posteriorly, faintly tinged with pale primrose; a whitish eye-ring; wing-markings, of the same pattern as in other species, or more extensive on secondaries and outer webs of tertials, definitely white; outer web of outermost rectrix pale grayish white. *Adult* (yellow-bellied phase): As in gray phase, but underparts strongly tinged with yellow, and upperparts faintly tinged with olive-green; wing-markings less purely white. Bill blackish above, more or less pale below, and dusky-tipped, or sometimes entirely dusky—quite variable in this respect. *Young birds* are whitish below and the wing-bands are buffy,

Taken in Inyo County *Photo by the Author*

MY LADY

as in other species. Length about 132 (5.20); wing 68 (2.69); tail 61 (2.40); bill 12 (.47); width at nostril 5.3 (.21); tarsus 17 (.71).

Recognition Marks.—Warbler size; prevailing gray coloration; whitish eye-ring; excessively retiring habits; smaller and darker than *E. griseus;* larger and lighter than *E. hammondi.*

Nesting.— *Nest:* Of "hemp," weathered weed-bark, fine grasses, and vegetable down, lined indifferently with finer grasses, or a few feathers; placed in upright crotch in bushes, or settled upon branch of evergreen sapling. *Eggs:* 4; pale creamy white, unmarked. Av. of 34 specimens in the M. C. O. coll.: 17 x 13.2 (.67 x .52); index 77; largest, 18.5 x 14.2 (.73 x .56); smallest (runt) 15.5 x 11.4 (.61 x .45). *Season:* June; one brood.

General Range.—Breeds in the mountains of western North America from about the northern border of Mexico north to southern British Columbia, southern Alberta, and southwestern Saskatchewan, and east to the eastern slopes of the Rocky Mountains; west to but not including the humid coastal strip, narrowly defined. Winters in Mexico.

Distribution in California.—Abundant during migrations at the lower levels, save in the humid coastal strip. A common breeder in the mountains throughout the

State, save in the more humid coastal sections, and from the upper limits of Transition to the limit of trees.

Authorities.—Cooper (*Empidonax obscurus*), Orn. Calif., 1870, p. 329 (Colorado R.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 318, pl. 11, fig. 33 (eggs); *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 78 (San Bernardino Mts.; habits, desc. nest and eggs, etc.); *Grinnell and Swarth*, Univ. Calif. Pub. Zool., vol. x., 1913, p. 256 (San Jacinto Mts.; breeding; crit.); *Ray*, Condor, vol. xx., 1918, p. 78, fig. (Lake Tahoe, breeding.).

IT WOULD be impossible to convey to the novice a sense of the mingled awe and reluctance with which the author approaches a declaration as to the appearance, voice, whereabouts, and general characteristics of this will-o-the-wisp of the mountains. Wright's Flycatcher, early dubbed the obscure (*Empidonax obscurus*), is likely to remain such in spite of our manliest endeavors. Its various obscurities have been apostrophized, anathematized, confused, misapprehended, misrepresented, and lied about, until one shudders upon entering the smoke-laden arena. And all because My Lady is so gentle,—gentle and most modest of the gentle, as soberly clad as a mouse and as timid, having a soft voice and a single liquid note, "*pit*" or "*swit*," with which she asks most devoutly to be let alone. It is somewhat otherwise with Sir Donax Wrighti, M. P., but of that anon. As for my lady, I have known her so well that to refuse testimony to her many excellencies would be a sort of treason, and—might reflect upon the Platonic qualities of our relationship.

It befell on a July day, the 5th it was, near Skiddooheim Camp,

Taken in Santa Barbara County *Photo by the Author*

A MIGRANT EMPIDONAX

Taken in Inyo County *Photo by the Author*

EARLY NESTING

THE LEAVES ON THE OSIERS HAVE JUST BEGUN TO APPEAR; YET IT IS JULY, AT ALTITUDE 11,300

Cottonwood Lakes, Inyo County, High Sierras, altitude 11,300. It was a land of contrasts, burning bright by day and freezing cold by night. The vivid green of new grass mocked the retreating snow-banks, and the dull green of clustering pines stood out against a background of glaciers and precipices. The very bush in which the nest sat had so recently escaped the confinement of the wintry drifts that its leaves were only half grown, and its tenant stood out to view at a hundred feet; yet here sat Mrs. Wrighti on four creamy white eggs, and she braved hostile notice as she had braved the mountain storms. She fled, indeed, when I wiggled her tail with my forefinger, but that was only the first time. We were better friends after that. The next day she allowed us to cut our way through the patch of brush to where the nest stood; she allowed me to set up the tripod camera at two feet; and she sat for half second exposures without even winking. At the end of an hour, though, she fled again, and when she returned she sat for some moments on the edge of the nest in a pensive daze as though undecided whether to sit or to flit. Then she sat, and never again did she debate the question of her duty.

Within a week we could do almost anything with her, stroke her wing feathers, playfully tweak bill or tail, thrust a sunburned nose at her, or cover her with a handkerchief—all unresisting. Truth to tell, she never really enjoyed these stunts, although she condescended to accept flies by

way of reparation. She was not eager, but it was evidently too good a thing to miss, so when I brought a fly within a half inch or so of her beak, she would seize it with a quick dab. She was too bashful to eat in our presence, however. She always held the fly in the tip of her beak until we had retired from view, then (presumably) she swallowed it. Once, while she was still holding a dead fly in her beak, I offered her a livelier one. Like a flash she dropped the dead fly and seized the living. It was the unerring professional instinct.

Once when a smart shower sprang up, accompanied by sleet, I hastened down to the nest and held a hat over her (at a distance of a foot or so) till the danger passed. This time I am positive she looked her gratitude.

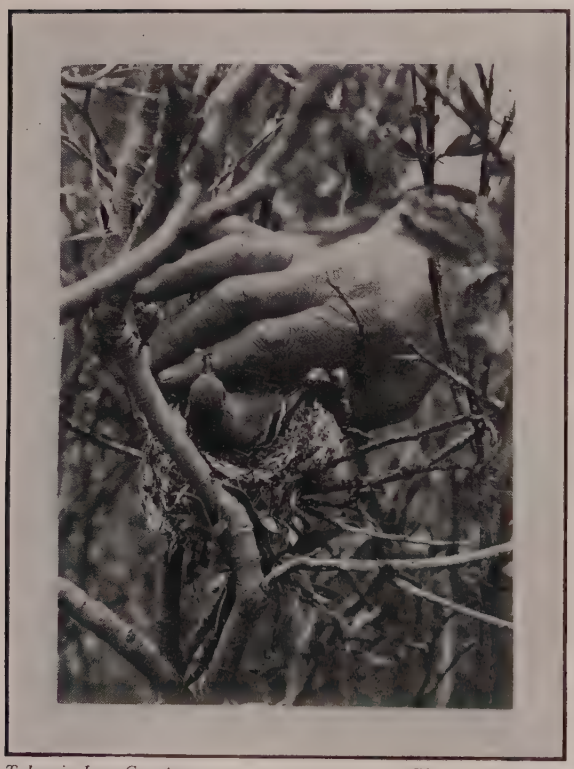
On the 13th day after discovery the eggs began to hatch. As I poked her aside momentarily, toward noon, we saw two naked babies and two eggs. Clothed with the new dignity of motherhood, "Birdetta," as we called her, adopted a more distant mien. She refused to take flies from my hand, and as often as I touched her she would rap me soundly with her little beak. We were rather rude neighbors, I fear, but our solicitude was genuine, and we noted with regret that only two eggs hatched, the first two having undoubtedly been frosted

Taken in Inyo County *Photo by the Author*

"SHE BRAVED HOSTILE NOTICE"

before incubation had set in. Perhaps it was better, though, for the weather was raw, and she had all the work to do alone, apparently.

That was the astonishing thing. This timid creature, battling with the elements, had no comfort of her mate. Evidently he was dead, for never once in our constant visits did we see any other Flycatcher than the patient female within a hundred yards of this nest. Other Flycatchers of some sort there were, however, in a distant grove. One little fellow, as merry as a partridge, kept to the tops of distant dead trees, perching and flying after the manner of the Least Flycatcher (*E. minimus*), and singing persistently: *Pusst pesek' pewit'—pssit pewick' pussett'*—etc.



Taken in Inyo County *Photo by the Author*

WE COULD DO ALMOST ANYTHING WITH HER

On the 10th of July, 1912, while in camp in a grove of White-bark Pines (*Pinus albicaulis*) in a magnificent cirque near Eagle Peak, in the Warner Mountain, I saw a Wright Flycatcher settle in a neighboring tree, to which the good wife had tied the camp clothes-line. The thing was incredible. We had been in camp there for ten days. One could have sat at the "dining room" table and snapped a prune pit into that particular cluster of pine needles. Yet there sat Mother Wright on four fresh eggs in a nest which she had built under our unsuspecting noses. We had no suspicion even of amorous traffic in our near neighborhood, let alone of house-building.

This nest was closely watched on the ensuing day, and we were sure that no other bird than the female *wrighti* came near the nest. To all appearances she was another widow. The nest was then collected, the female interposing only a flood of soft *swits* uttered with unusual emphasis and, once, a sort of tittering cry, like that of the Western Wood Pewee, though weaker. On the day following there was a great stir of activity on the part of the Wright Flycatchers. In view of the late

hour, July 12th, nesting must be speedily resumed. The *discarded mate had been recalled from exile*, and he was joyously shouting the mating call, *whêw hit'* or *hit' whêw hit'*, interspersing his emphatic declaration with a variety of lesser notes, and the ever present, infallibly characteristic *swit*. The secret was out. Thenceforth it was to be plain sailing.

The male *wrighti* on his native mountain-side is a bristling, active, and self-important creature, albeit excessively wary. He has an extensive repertory of notes, entirely unlike any uttered by the female, and of so varied a character as to have given rise to great confusion. The two syllabled *pewick'* or *pusek'* note, especially, is very like that of *hammondi*, although it is undoubtedly milder and less sharply accented. This note is susceptible of great variation, especially when uttered in groups of three: *Pusek'—pitic'—squiz'ik; sit'ick—chit'ick—sue whit'; pssit pewick pussett'*. It is, however, the high-pitched and resonant *whêw hit'* call which startles the woods and marks the movements of the male at the mating season. This note is essentially a mating, or seeking, call; and it is uttered successively from prominent tree-tops over a wide range of territory, in much the same fashion as the challenge song of the Ruby-crowned Kinglet, which is to be heard in the same woods. Judged by this staunch character, Grinnell is undoubtedly right in withdrawing his earlier contention that the breeding birds of the southern mountain ranges are Gray Flycatchers (*E. griseus*),[1] for the *whêw hit'* notes of birds heard in the San Jacintos have precisely the same lilt as those heard in the Warners, and are utterly unlike the efforts of any other known species.

In migrations, these birds may be found almost anywhere. In the great wave which struck the east-and-west-stretching Ventura-Gaviota coast, in late April, 1912, Wright Flycatchers were a prominent factor. Keeping always a certain fly-catching distance from their fellows, they were, nevertheless, so thickly planted that some had to accept very humble perches,—mustard patches, fence-rails, willow thickets, or even boulders and driftwood. For the most part, they are silent on migration, and it is only when one can be cajoled into remarking *swit* that the student may feel sure of his ground. One of these travelers, "snapped" in the mustard, was an *Empidonax*, no doubt of that; but whether *trailli*, *wrighti*, or *hammondi*, no man will ever know.

[1] "A Distributional List of the Birds of California," Pac. Coast Avifauna, No. 11, 1915, p. 93.

No. 176

Gray Flycatcher

A. O. U. No. 469.1. **Empidonax griseus** Brewster.

Description.—*Adult:* Similar to *E. wrighti*, but wing averaging decidedly longer, tail shorter, bill longer and relatively narrower, and coloration much grayer above (Ridgway). Also decidedly larger; the first primary (outermost) equal to or longer than the 6th (as in *E. hammondi*); the tail less or not at all emarginate; the outer web of the lateral pair of rectrices definitely white. The terminal third of mandible brownish dusky; the basal portion lilaceous white (not variable as in *E. wrighti*). Measurements—av. of seven males from the Colorado River: Length (skins) 139.6 (5.50); wing 71 (2.80); tail 59 (2.32); bill 12.3 (.49); width at nostril 5.1 (.20); tarsus 18.3 (.72).

Recognition Marks.—Warbler size; obscure grayish coloration; larger and grayer than *E. wrighti*, but not certainly distinguishable out of hand.

Nesting.—*Nest:* A deep cup composed externally of grasses, weed-stems, and weathered bark-strips; felted internally with finer materials, including feathers; placed two or three feet high in greasewood or sage. *Eggs:* 3 or 4; ovate or short-ovate; pale creamy white. Av. of 14 specimens from Mono County, in the M. C. O. coll.: 17 x 13.2 (.67 x .52). *Season:* June; one brood.

General Range.—"Southwestern United States and Mexico. Breeds from mountains of southern California [discredited], Arizona [no evidence], and southern New Mexico [no evidence], to southern end of the Mexican tableland [??]; winters from southern California and southern Arizona south in Lower California and Mexico to Puebla and Tepic. Casual in Colorado" (A. O. U. Check-List, 3rd Ed., with brackets by author).

Conjectural Range.—Summer resident, of very local distribution, in the Upper Sonoran life zone of the Great Basin region, probably north into Washington. South in winter to southern Mexico.

Distribution in California.—Of sharply localized occurrence as a breeder in the high-lying sage sections east of the Sierras (Mono Craters, June 2-7, 1919; June 12-14, 1922). Fairly common in winter in the southeastern deserts and in the valley of the Colorado.

Authorities.—**Baird, Brewer and Ridgway** (*Empidonax obscurus*), Hist. N. Am. Birds, vol. iii., 1874, p. 520 (San Buenaventura, winter); *Grinnell*, Pasadena Acad. Sci., Pub. no. 2, 1898, p. 31, part (Los Angeles Co.; lowlands in fall and winter); *ibid.*, Pac. Coast Avifauna, no. 11, 1915, p. 93 (status in Calif.); *Nelson*, Auk, vol. xxi., 1904, p. 80 (crit.; nomencl.); *Walker*, Condor, vol. vi., 1914, p. 94 (Crook Co., Ore.; desc. nest and eggs); *Dickey and Van Rossem*, Condor, vol. xxiv., 1922, p. 137 (White Mts.; probably breeding).

Remarks.—The case of *Empidonax griseus* is, without exception, the most baffling in the current annals of western ornithology. First recognized by Dr. Brewster, in 1889, from specimens taken in Lower California (La Paz), it was for years hopelessly confused with *E. wrighti*, which it so closely resembles. Grinnell erroneously recorded it as resident in Los Angeles County, and, later, as the breeding bird of the San Bernardinos; but careful study of the breeding birds of the San Jacinto Mountains in 1908 convinced him of his error, and laid under suspicion all previous records of the occur-

rence of this bird in California, save those concerned with the valleys of the San Diegan district, the desert lowlands, and the valley of the Colorado River. Careful study of the last-named region in the winter and spring of 1910 showed the Gray Flycatcher as a characteristic winter resident, and raised the question whether we have here an example of reverse migration—Mexican birds coming north to winter—or whether there is still, in the ever hospitable north, some breeding area large enough to cradle, all unrecognized by man, this bird of mystery.

By every analogy *E. griseus* should have characteristic notes which would give us the clue to field recognition and enable us to unravel the tangled web of relationship which involves *hammondi*, *wrighti*, and *griseus;* but no one has yet reported on the vocal distinctions, if they exist.

So ran the legend as penned in 1916 and intended for this work. To this I am able to append the following bulletins:

Taken in Mono County *Photo by the Author*

NESTING HAUNT OF GRAY FLYCATCHER

THE GROPINGS and conjecturings of Science-in-the-making afford amusing reading after the clew is found. We are not out of the woods yet, but the timber is thinning. The Gray Flycatcher is beginning to take on the semblance of reality.

On the 2nd of June, 1919, while we were pausing in a heavy stretch of mingled greasewood (*Sarcobatus vermiculatus*) and sage (*Artemisia tridentata*), at a point due west of the Mono Craters, a member of our M. C. O. party found a "Wright" Flycatcher's nest, with three eggs, in a sage-bush. A few minutes later another collector found an incomplete

set, two eggs, in a nest two feet up in a greasewood. The altitude was approximately 7000 feet, high Upper Sonoran, and about two miles from the nearest timber.

Returning on the 7th of June we gave the neighborhood careful study, and roughly defined the limits of a small colony, at least seven pairs, of the supposed Wright Flycatchers. We were able to locate six nests in a space approximately half a mile square. It was not *easy* work, and we may have missed some. The females sat very closely, so closely, indeed, that we could almost touch them on the nests. Only one was caught foraging quite alone, and she was traced without great difficulty to her nest. Another bird, evidently a male, was less promising. He had started up somewhat brusquely from the sage, and was off so quickly that I could not tell within twenty feet where he came from. Again and again the bird lighted on the very lowest bushes and plucked something from the leaves, an insect, apparently. The bird also posted for aggravating intervals, as much as ten minutes sometimes. But I was encouraged by the fact that he was working back nearer to the supposed place of origin. A sparrow lighted in the bush at about the level I suspected the bird of flying from, and the flycatcher took up the challenge promptly, pounced upon the intruder and drove him out; having done which, he posted near by quite contentedly. After this he wandered aimlessly over nearby bushes and returned to his central post. I concluded that he was a male on guard near the nest. Acting on this assumption I arose to investigate. The bird departed instantly and ostentatiously. But when I took up my stand where he had been last, I had no difficulty in spotting the nest with the female on, about twelve feet away in a sage-bush. I have been thus explicit because I have never known of an instance in which the male *wrighti* mounted guard in close proximity to a nest, or, indeed, betrayed any knowledge of its existence.

These notes were dutifully filed under the heading "*Empidonax wrighti*"; but for the rest of the season of 1919, I saw *wrighti* only at timberline or thereabouts, and the recollection of that freak colony, blistering by preference in the open sage, haunted me. Then an overlooked item in "The Condor" (xvi., p. 94) came to attention:

"**Nesting of the Gray Flycatcher in Oregon.**—June 7, 1913, I collected a nest and three eggs of the Gray Flycatcher (*Empidonax griseus*) on the juniper flat, at the north of Pauline Mountains, Crook County, Oregon. The parent bird was taken with the nest, and identified by Mr. H. C. Oberholser and Mr. Joseph Grinnell. The eggs are creamy white, and were but slightly incubated. Data reads as follows: Nest composed of small dead weed stems, plant-down, hair, shreds of sage-brush bark and some grasses, quilted together, and lined with wool and fine feathers. Situated in the crotch of a sage-bush, on a sage and juniper flat. Nest about two feet above the ground. Female bird incubating.—Alexander Walker, Mulino, Oregon."

Of course! How simple! But other good men have fallen into the same trap, all unawares, as witness this from the pen of Vernon Bailey in the steenth edition of the justly famous "Handbook":

"In the Great Basin country *wrightii* is as much at home in the sagebrush as most other species of *Empidonax* are in shady woods or around grassy meadows. His trim little form is often noticed on top of a sagebrush by the roadside, sometimes far from water, but more often within reach of pond or stream. A favorite place for a nest is in the fork of a sage."

Griseus is evidently the bird of the open sage, and *wrighti* is the bird of the timbered mountains.

Now (before going to press) as a last appendix to this chapter of science-in-the-making, I add that in June, 1922, the M. C. O. party spent two unexpected days with this same "colony" near Mono Craters. By some fluke of fortune we had no gun—perhaps we should have been no

Taken in Mono County *Photo by the Author*

A CLOSE-UP OF MRS. GRISEUS

THE ARTIST HAS TRIED TO IMPROVE THIS NEST BY THE ADDITION OF A SORT OF PATENT WHISKERS, AFTER THE CURIOUS FASHION OF HIS KIND

Taken in Mono County *Photo by the Author*

NEST IN GREASEWOOD

wiser if we had had, because the doctors are still debating in their closets whether such a species as *Empidonax griseus* actually exists. In this exigency perhaps field testimony is more reliable. I can testify, then, that we found these birds everywhere in the *sarcobatus* belt. We took twelve sets of eggs with nests, besides observing several nests a-building. In our close, almost exclusive, association with these birds, we did not once hear the *whew hit* notes, which are distinctive of the male Wright Flycatcher, although this was the first sound we did hear upon returning to our base camp in the fir belt some 20 miles away. Again and again we observed the close association of male and female in the vicinity of their nest, a custom which is absolutely taboo in orthodox *wrighti* society. The notes and social customs of this desert-haunting group of *Empidonaces*, together with their nests of much more massive construction, serve to distinguish them from the established *E. wrighti* type, much more certainly than do any alleged differences in somatic characters.

And now come two young scientists of most reputable standing who assert that they have found *wrighti*, *hammondi*, and *griseus* breeding together at the higher levels (say 10,000 or 11,000 feet) of the White Mountains, and that the *young* of *wrighti* and *griseus* are clearly distinguishable. Here is work for the gods! I resign!

No. 177

Olive-sided Flycatcher

A. O. U. No. 459. **Nuttallornis borealis** (Swainson).

Description.—*Adult:* Upperparts brownish slate with a just perceptible tinge of olivaceous on back; top of head a deeper shade, and without olivaceous; wings and tail dusky blackish, the former with some brownish gray edging only on tertials; flank-tufts of fluffy, yellowish or white feathers, sometimes spreading across rump and in marked contrast to it, but usually concealed by wings; throat, belly, and crissum, and sometimes middle line of breast, white or yellowish white (naphthaline yellow on belly); heavily shaded on sides and sometimes across breast with brownish gray or olive-brown—the feathers with darker shaft-streaks. Bill black above, pale yellow below; feet black. *Immature:* Similar to adult, but coloration a little brighter; wing-coverts fulvous or buffy. Length about 177.8 (7.00); wing 105.7 (4.16); tail 70 (2.756); bill 17 (.67); tarsus 15 (.59).

Recognition Marks.—Sparrow size; heavily shaded sides; bill yellow below; *tew-tew* note; keeps largely to summits of conifers.

Nesting.—*Nest:* A rather shallow cup of twigs, bark-strips, and, rarely, grasses—or moss (northerly); lined with coarse rootlets (or, exceptionally, with moss and fine grass), settled upon horizontal spreading branch of conifer or other tree, often at great heights. *Eggs:* 3, very rarely 4; creamy white, cartridge buff, or pale pinkish buff; handsomely and rather sparingly spotted, chiefly in wreath about larger end, with chocolate, walnut-brown, pecan-brown (exceptionally sayal brown), and vinaceous gray. Av. of 22 eggs in the M. C. O. coll.: 22 x 16 (.866 x .63); index 72; range 20-24.1 by 14.5-17 (.79-.95 by .57 x .67). *Season:* June 1–15; one brood.

General Range.—North and South America; breeds in Transition and Canadian zones from central Alaska and southern Mackenzie east to central Quebec and Cape Breton Island, south in the coniferous forests of the West to southern California, Arizona, and Texas; and in the East south in the mountains to North Carolina; passes through Mexico and Central America in migrations; and winters in northwestern South America to Peru.

Distribution in California.—Common summer resident in Transition and Canadian zones, practically throughout the State, save in the eastern desert ranges, south to Cuyamaca Mountains and Santa Barbara. Near Carpinteria breeds almost to sea-level in pure Upper Sonoran, non-coniferous associations. In humid coastal strip breeds down to sea-level from Monterey County north. Of wide occurrence during migrations.

Migrations.—*Spring arrivals*: Santa Barbara, May 6, 1911; May 7, 1912; Apr. 29, 1913; Apr. 29, 1914; Apr. 29, 1919; May 3, 1920.

Authorities.—**Gambel** (*Tyrannus borealis*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1847, p. 157 (Monterey); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 282, pl. 2, figs. 15, 16 (eggs); *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 76 (San Bernardino Mts.; habits, desc. nest and eggs); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 41 (food); *Dixon*, Condor, vol. xxii., 1920, p. 200, figs. (desc. nest, eggs, taken at Berkeley); *Bangs and Penard*, Proc. Biol. Soc. Wash., vol. xxxiv., 1921, p. 90 (*Nuttallornis borealis majorinus*, new subsp.; type locality, Pine Flats, Los Angeles Co.).

OLIVE-SIDED FLYCATCHER

FLYCATCHERS belong to the sub-order *Clamatores*, that is to say, Shouters. Some few of our American Flycatchers lisp and sigh rather than cry aloud, but of those which shout the Olive-sided Flycatcher is easily dean. And it is as an elocutionist only that most of us know this bird, even though our opportunities may have stretched along for

decades. On a morning in early May, as surely as the season comes around, one hears a strong insistent voice shouting, "*See here!*" There is not much to see, save a dun-colored bird seated at an impossible height on the summit of a tall fir tree. Its posture is that easy half-slouch which, with the Flycatchers, betokens instant readiness for action. While we are ogling, the bird launches from his post, seizes an insect some thirty feet distant, and is back again before we have recovered from surprise. "*See here!*" the bird repeats, but its accent is unchanged and there is really nothing more to see.

An intimate acquaintance with the Olive-sided Flycatcher is not easily attained; but its characteristic cry carries to a distance of half a mile or more, and is, fortunately, quite unforgetable. Both in accent and energy it seems to set the pace for several of the lesser Tyrants. Of course, like many another of the voices of Nature, its interpretation depends a good deal upon the mood of the listener. Heard on a dull day at sea-level it may sound dismal enough, but heard in the sharp air of the mountains it becomes an exultant note. At closest range one notices a premonitory note, a liquid *quit*, as is often the case with the strong-voiced species. *Quit, we're here*, the birds of the San Jacinto

Taken in the San Jacinto Mts. *Photo by the Author*

A ROMANTIC OUTLOOK

THE X MARKS POSITION OF AN OCCUPIED NEST

Mountains seemed to say: and if they warned us once, they did a thousand times. "Well, what of it?" we were minded to retort. But miners, toiling in the depths of the Sierras, come to regard the brisk evening greeting of this flycatcher as one of the compensations of solitude. "*Hip! Three cheers!*" says the bird as he sees his friends emerging from the tunnel's mouth; and the miners shout, "Hooray!"

Photo by the Author

"A RUSTIC SAUCER OF INTERWOVEN TWIGS"

Borealis is a bird of the treetops, and nearer you cannot come, save in nesting time, when caution is thrown to the winds, and studies in morbid psychology are all too easy. The birds place a rustic saucer of interwoven twigs and mosses, lined with rootlets, upon the upper side of a horizontal branch, whether of yellow pine, tamarack pine, or fir tree; and as often as otherwise at moderate heights. The small bird usually maintains a prudent aloofness in the early days; but as incubation advances, his solicitude breaks bounds. Then both birds betray uneasiness at the approach of strangers and begin to flit about, with restless, tittering cries, *tewe-tewe*, *tewe-tewe*, or *tewe-tewe-tewe*, sounds which strangely excite the blood of the oölogist. Once the nesting tree is made out

and the ascent begun, the birds are beside themselves with rage, and dash at the intruder with angry shouts which really stimulate endeavor where they are intended to discourage it.

How fatal is the beauty of an egg-shell! There be those of us who have drunk so oft of this subtle potion that the hand goes out instinctively to grasp the proffered cup. Besides, the product of an Olive-side's skill is of a very special kind,—a rich cream-colored oval, warmed by a hint of living flesh, shadowed by lavenders and splotched with saucy chestnut. It is irresistible! But, boys, don't do it! We are old topers ourselves; public sentiment is against us, and our days are numbered. It is right that it should be so. Besides that, and speaking in all seriousness now, while it is desirable and necessary that a few representative collections of natural history should be built up *for the public use*, it does not follow that the public good is secured by the accumulation of endless private hoards of birds' eggs—whose logical end, in ninety-nine cases out of a hundred, is the scrap-heap. You are probably one of the ninety-nine. Think twice before you "start a collection," and then—don't!

Taken in the San Jacinto Mts. *Photo by the Author*

A DIFFIDENT OLIVE-SIDE

No. 178

Western Wood Pewee

A. O. U. No. 462. **Myiochanes richardsoni richardsoni** (Swainson).

Synonyms.—Short-legged Pewee. Richardson's Pewee.

Description.—*Adults:* Above deep grayish brown or grayish olive-brown, the pileum with dusky mesial streaks, the quills and tail dusky; a lighter shade of grayish brown continued around sides and across breast, lightening on chin and throat, where

also washed with yellow; on remaining underparts becoming yellowish white or pale greenish yellow; middle and greater coverts tipped with grayish, the greater more broadly; outer webs of tertials edged with grayish white, the anterior feathers, so marked, forming with the tips of greater coverts a noticeable bar. Bill blackish above, dusky (never light) below. *Young birds* have the middle and greater coverts tipped with buffy (forming *two* not inconspicuous bars); and some buffy edging on rump and upper tail-coverts. This species bears a curiously close resemblance to *M. virens* of the East, insomuch that it is not always possible to separate specimens in the cabinet; yet the two are perfectly distinct in note and habit, and are not suspected of intergradation. Length of adult males 139.7-165.1 (5.50-6.50); wing 87 (3.43); tail 66 (2.60); bill 13 (.51); tarsus 13.4 (.53). Females a little smaller.

Recognition Marks.—Warbler to sparrow size; dark coloration (appearing blackish)—much darker and a little larger than any of the *Empidonaces*. *Meezeer* note of animated melancholy, distinctive.

Nesting.—*Nest:* A handsome cup of grasses and plant-fibers, lined with fine grasses, or, more rarely, feathers, and saddled upon horizontal branch, usually a dead one, without attempt at concealment. The exterior is, however, invariably finished in gray, usually by copious use of cobwebs, by which, also, the entire structure is bound to branch. *Eggs:* 3 or 4; pale creamy white to ivory-yellow, spotted, rather finely, or with occasional blotches, in open wreath about larger end, with chocolate (rarely chestnut, russet, or even tawny olive) and vinaceous gray. Av. of 69 eggs in the M. C. O. coll.: 17.5 x 13.4 (.69 x .526); index 76; range 14.5-20.3 by 12.45-14.5 (.57-.80 by .49-.57). *Season:* May 10–July 10, according to altitude; one brood.

General Range.—"Western North America and South America. Breeds from central Alaska (casual at Point Barrow), southern Mackenzie, southern Saskatchewan, and southern Manitoba, south to northern Lower California, Sonora, Chihuahua, Coahuila, Nuevo Leon, and Tamaulipas; migrates through Mexico and Central America; winters in Ecuador, Peru, and Bolivia" (A. O. U. Com.).

Distribution in California.—Common summer resident from the lowermost limits of Upper Sonoran to limit of trees in Boreal zone; of wide occurrence during migrations.

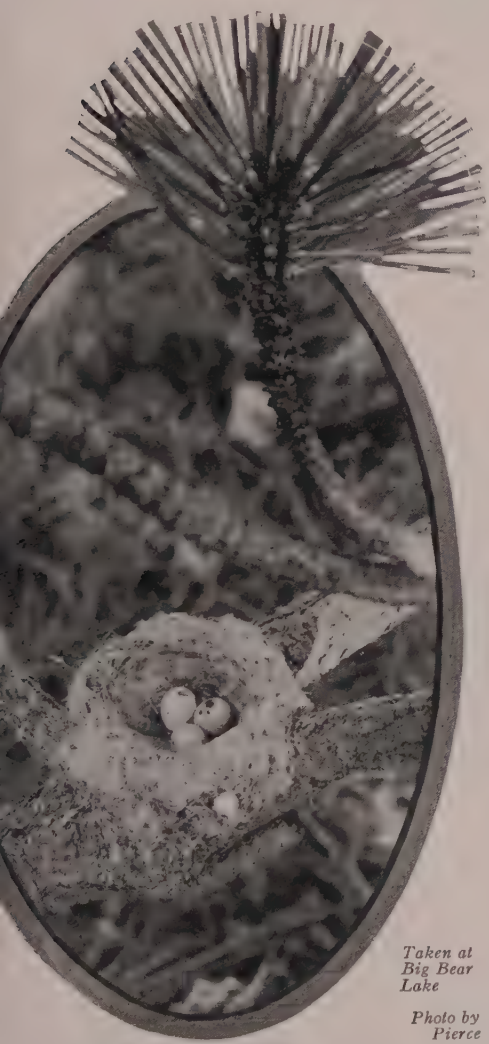
Migrations.—*Spring arrivals:* Santa Barbara, Apr. 29, 1911; Apr. 8, 1913; Apr. 22, 1919; Santa Cruz Island, Apr. 18, 1915. *Fall departures:* Santa Barbara, Sept. 11, 1911; Sept. 11, 1915.

Authorities.—**Heermann** (*Tyrannula virens*), Jour. Acad. Nat. Sci. Phila., vol. ii., 1853, p. 262 (Calif.); *Coues*, Birds of the Northwest, 1874, p. 247 (syn., desc. habits, comparison with *virens*); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 291, pl. 11, figs. 20-22 (eggs); *Ray*, Auk, vol. xx., 1903, p. 184 (Sierra Nevada; habits, desc. nest, eggs); *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 44, 1912, p. 49 (food); *Mailliard, J. W.*, Condor, vol. xxiii., 1921, p. 76 (Lake Tahoe; nesting habits).

THE PREY of gentle melancholy and the heir to gloom is this Pewee of the West. The day, indeed, is garish. The leaves of the fragrant cottonwoods glance and shimmer under an ardent sun; while the wavelets of the lake, tired of their morning romp, are sighing sleepily in the root-laced chambers of the overhanging shore. The vision of the distant hills is blurred by heat pulsations; the song of birds has ceased and the very caddis-flies are taking refuge from the glare. The sun is

dominant, and all Nature yields drowsy allegiance to his sway. All but Pewee. He avoids the sun, indeed, but from a sheltered perch he lifts a voice of protest, "*Dear Me!*"

It seems uncalled-for. The bird does not appear to be unhappy. Fly-catching is good, and the Pewee cocks his head quite cheerfully



Taken at Big Bear Lake

Photo by Pierce

NEST AND EGGS OF WESTERN WOOD PEWEE

WESTERN WOOD PEWEE

as he returns to his perch after a successful foray. But, true to some hidden impulse, as you gaze upon him, he swells with approaching effort, his mandibles part, and he utters that doleful, appointed sound, *dear me.* His utterance has all the precision and finality of an assigned part in an orchestra. It is as if we were watching a single player in a symphony of Nature whose other strains were too subtle for our ears. The player seems inattentive to the music, he eyes the ceiling languidly,

he notes a flashing diamond in the second box, he picks a flawed string absently, but at a moment he seizes the bow, gives the cello a vicious double scrape, *dear me*, and his task is done for that time.

But if our musician is faithful to the score of daylight, he makes himself responsible for its comings and its goings. Over how many millions of acres of western woodland is not the dear, doleful precentor the first to break the brooding silence of the night! Or ever the owl and the night-hawk have gone to bed, his voice booms out in the darkness and serves notice of impending day. And he it is who tolls the knell of day departing. Only the Mockingbird, lovesick and comfortless, disputes him,—he and the Nuttall Sparrow, rousing tipsily at goodness knows what hour to shout defiant babblings.

The Western Wood Pewee is one of the later migrants, and a great loiterer at that. For although our local population reaches the southern part of the State by the 18th of April, and a nest with eggs has been taken at Pasadena on the 1st of May, such birds as intend to breed in Alaska may be passing as late as June 1st. It is found as a summer resident wherever there is timber, even from sea-level to the limit of trees on the Sierran slope; yet it shows a marked preference for the more open situations, and a measurable though not slavish dependence upon water.

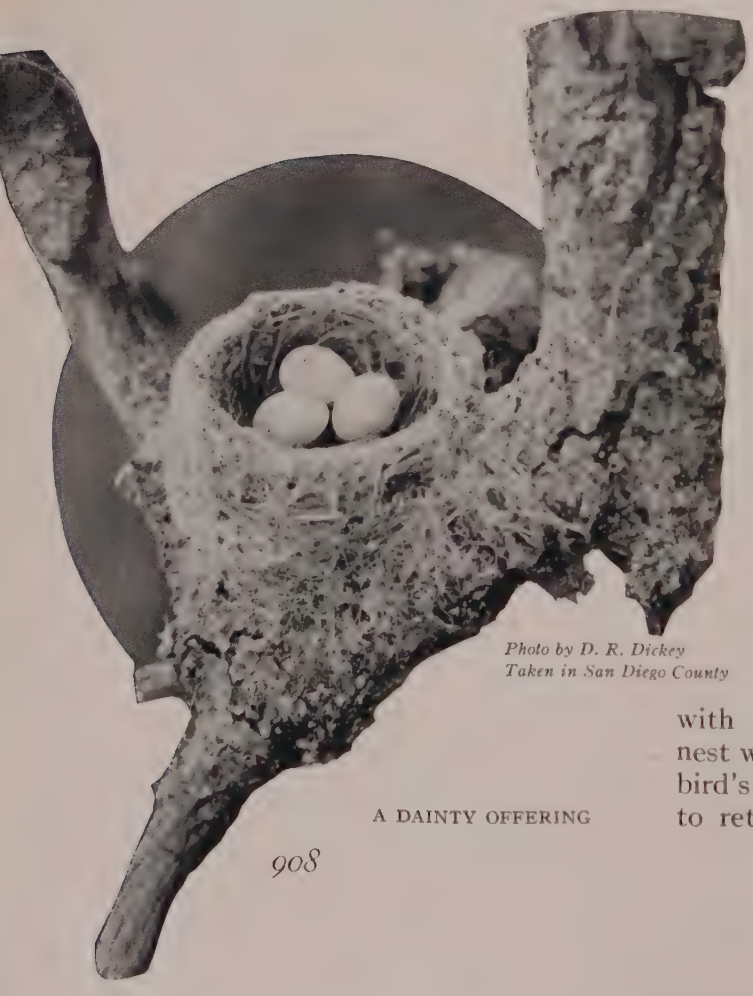


Photo by D. R. Dickey
Taken in San Diego County

A DAINTY OFFERING

The Pewee takes the public quite into her confidence in nest-building. Not only does she build in the open, without a vestige of leafy cover, but when she is fully freighted with nesting material she flies straight to the nest and proceeds to arrange it with perfect nonchalance. If a nest with eggs is discovered in the bird's absence, she is quite likely to return and settle to her eggs

without a troubled thought.

The nest is a moderately deep, well-made cup of hemp, fine bark-strips, grasses, and similar soft substances; and it is usually saddled upon a horizontal limb of pine, fir, maple, alder, oak, aspen, sycamore, etc.; but occasionally the nest is set in an upright crotch of a willow or some dead sapling. Nests having such support are naturally deeper than saddled nests, but the characteristic feature of both sorts is the choice of a site quite removed from the protection of leaves. The grayish tone of the bark in the host tree is always accurately matched in the choice of nesting materials, and, if the result can be secured in no other way, the exterior of the nest is elaborately draped with cobwebs.

Taken in Modoc County *Photo by the Author*

A PORTRAIT

All eggs appear beautiful to the seasoned oölogist, but few surpass in dainty elegance the three creamy ovals of the Pewee, with their spotting of quaint old browns and subdued lavenders. They are genuine antiques, and the connoisseur must pause to enjoy them even though he honors the prior rights of Mr. and Mrs. *M. Richardsoni*. It is not certain that we shall be left to undisturbed enjoyment either. If the Pewee's nest is placed in the open, it is only that she may watch it the better, and woe betide the stranger, bird or

Taken in Inyo County

Photo by the Author

THE BIRD-NESTER

WOOD PEWEES OFTEN CHOOSE EXPOSED SITUATIONS

beast, who covets her handiwork. The nest under survey in the illustration accompanying was discovered to us by a female Audubon Warbler, who was out after house-furnishings. When she spied this treasure she chortled with delight, and proceeded to help herself to some of the choicest hangings. Quick as a flash the Pewee was upon her; and from the scrimmage which followed the warbler emerged a bootless and chastened bird. Chipmunks fare no better; and as for humans, if certain trophies do adorn our cabinets, it is only because we have taken a wicked advantage of this sad-voiced but valiant-hearted wood sprite.

No. 179

Vermilion Flycatcher

A. O. U. No. 471. **Pyrocephalus rubinus mexicanus** Sclater.

Description.—*Adult male:* Top of head and broad occipital crest intense scarlet-red or scarlet; entire underparts bright scarlet, grenadine red, or flame-scarlet; sides of head narrowly and sides of neck broadly and upperparts nearly uniform brownish dusky; tail deeper dusky; a little faintly rufescent light edging on wing-coverts, tertials, and outer edge of outer pair of rectrices. Bill and feet black. *Adult female:* Red confined to wing-linings and posterior underparts, where much lighter than in male (peach-red and strawberry-pink, grenadine pink, etc.); anterior underparts white, breast broadly, streaked with brownish; upperparts warm grayish brown to fuscous, lightening on forehead, blackening on tail; pileum with mesial dusky streaks; a vague supraloral and superciliary line of whitish; upper plumage and streaks on breast more or less edged with faint rufescent. *Yearling males* are like the adult females, but the red of posterior underparts is lighter, more orange or salmon-pink. *Young birds* of both sexes are much like female, but without red and with much lighter edging of upper plumage. Length 127-152.4 (5.00-6.00); wing 78 (3.07); tail 56 (2.20); bill 12.5 (.49); tarsus 15.7 (.62).

Recognition Marks.—Warbler size; brilliant red of male unique for size; pale red belly of female, distinctive.

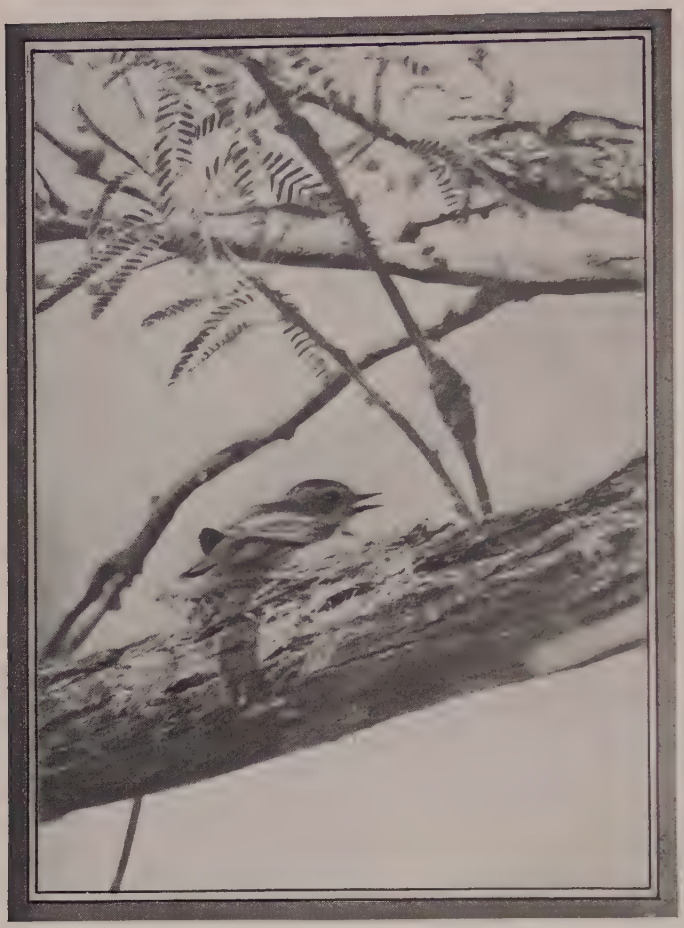
Nesting.—*Nest:* A neat cup settled into crotch of large horizontal limb of mesquite, willow, hackberry, or other tree; at moderate heights—10 to 40 or even 60 feet; composed externally of straight twigs laid log-cabin fashion, bound together by copious cobwebs; internally of fine grasses, weed-bark, and other vegetable substance, lined with fine grasses, horsehair, or feathers. A typical nest is two inches across the hollow, and one and a quarter inches deep. *Eggs:* 3; dull white, pale creamy white, or pale cartridge buff, boldly and handsomely spotted and blotched, chiefly in broad belt about larger end, with brownish black, sepia, and tawny olive (according to dilution) and light violet-gray (violet-gray to pale violet-gray, according to depth of limy overlay). Av. of 101 eggs in the M. C. O. coll.: 17.2 x 13.1 (.675 x .515); index 76; range 15.75-18.5 x 12.45-14 (.62-.73 by .49-.55). *Season:* c. May 1–June 10; one brood; (Colorado River, opposite Cibola, April 2, 1910, by Grinnell, probably very exceptional).

General Range.—Resident in Lower Sonoran zone from southeastern California, southern Nevada, southwestern Utah, western and southern Arizona, southern New Mexico, and southern Texas, south to Lower California and central America.

Distribution in California.—Resident in valley of the Colorado River north to Needles, more sparingly in Imperial Valley, northwest at least to Torres (Grinnell), and on the Colorado-Mohave deserts west at least to the Cushenberry Ranch (Hoffmann). In winter visits lowlands of the San Diego district, irregularly and in small numbers, north at least to Santa Barbara (March 15, 1907, by Bradford Torrey).

Authorities.—**Baird** (*Pyrocephalus rubineus*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 201 (Ft. Yuma); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 322, pl. 11, figs. 34, 35 (eggs); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 65 (status in s. Calif.); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 153 (Colorado Valley, habits, nesting, etc.); *Hoffmann*, Condor, vol. xxiii., 1921, p. 166 (east base San Bernardino Mts., June).

The Vermilion Flycatcher



Taken in Arizona *Photo by the Author*

"CHOOSES AN EXPOSED SITUATION"

AS BEAUTIFUL as heart's desire is this brilliant child of the tropics. By the flawless scarlet of his ample crest and entire underparts we may appraise the meagerness of color with which nature has endowed most of our northern species. Only the Western Tanager at his best has anything half so wonderful in head dress—he and the Arizona Cardinal, which, unlike the Vermilion Flycatcher, does not attain our eastern borders. The occurrence of the Vermilion upon the Pacific slope of southern California is doubly impressive, because it is only in fall or winter that the bird displays itself. Normally confined in summer to the mesquite area of the Colorado Desert, the Imperial Valley, and the borders of the Colorado River, the birds retire irregularly, but not fully, in winter. Some may go south, others south and east, but a few at least venture into San Diego and Los Angeles counties; and they have been seen on two or three occasions as far west as Santa Barbara.

The bird is apt to be a little shy anywhere within our borders, as though conscious that its brilliance is attracting too much attention; but in the mesquite forests of, say, the Santa Cruz River in Arizona, where the bird abounds, its movements are as unrestrained as those of Black Phoebes or Gnatcatchers. Although dependent more or less upon the presence of water, the bird may be seen along hedge-rows or about

the shade-trees which hide some outlying ranch. It is demure, rather than excessively active, and waits patiently in exposed situations,—a fence-post, the tip of an upturned tree-root, or a barren branch, at any height, for the appearance of passing bug or fly, in order that it may sally forth and capture it midair, with a graceful snap and flutter.

The female, likewise, in nesting chooses an exposed situation,—almost invariably a crotch of a horizontal limb of mesquite or willow, in order that it may have a commanding view of the passing show of insects. Incubation is as much a shielding of eggs from the too ardent sun as it is an encouragement of the life process; so the bird averages things up by absenting herself from the nest every few minutes. She secures her own food in large measure, but if her lord has a gracious offering to make, she meets him midair, or at some appointed rendezvous, rather than to suffer his shining, tell-tale presence about the home tree. In the cooler hours, which enforce a stricter attention to duty, the modest bride is entertained in becoming fashion. No spectacle could be more bewitching than that of the ecstasy song flight of the Vermilion Flycatcher. In him the very pride and joy of

Taken in Arizona *Photo by the Author*

VERMILION FLYCATCHER, FEMALE, NEAR NEST
THE BIRD IS THE ONE SHOWN IN PRECEDING ILLUSTRATION

life burst cover; and the little tyrant, breasting the sun, now flutters with exaggerated wing-motion, thinking only of display and not at all of progress, and now pours forth his soul in that stirring song, *tutty tutty tutty zzüngh*. This last is a marvelous, vibrant sound, sufficient in itself to entitle the performer to a decoration. There is not the smallest doubt, either, that the performance is for the lady's benefit; for after several passages of such aërial address, the gallant turns homeward, or ladyward, to claim applause.

In watching the antics of a certain Vermilion dandy, I saw him resort twice to a tiny fork on a horizontal branch, remote from any possible proximity of a mate, and indulge in a very peculiar set of motions, bowing and turning, and lying supine with outstretched wings and dangling feet. Careful reflection showed the act to be an outcropping, through suggestion, of what we call a secondary sex character, viz., a demonstration of the nest-building instinct, excited by the presence of an especially attractive site.

Taken in Arizona *Photo by the Author*

NEST AND EGGS OF VERMILION FLYCATCHER

The nest of a Vermilion Flycatcher is a fairy creation—rather a shallow cup outlined boldly with twigs, bodied with frayed grasses and weathered weed-barks. It is lined exquisitely with feathers, and the whole structure is cemented, as well as bound to its moorings, with a copious supply of cobwebs. Egg-laying is very likely to commence before the nest is

finished; but if so, the work is carried to completion, and the bird cannot resist the appeal of proffered upholsteries at any time thereafter. The eggs, invariably three in number, are among the handsomest known to science,—whitish as to ground, but broadly belted with bold spots of blackish or sepia. These spots often converge, and in exceptional instances we have a nearly solid belt of color, sharply contrasting with the immaculate areas attendant. The chicks are black for a few days after hatching, with some outcropping of white down, and for these babies the anxious parents will entreat in winning accents, *please* or *tease*—something after the manner of our Black Phoebe.

Taken in Arizona *Photo by the Author*

A DISTANT VIEW

MALE VERMILION FLYCATCHER IN MESQUITE

No. 180

Calliope Hummer

A. O. U. No. 436. **Stellula calliope** (Gould).

Synonyms.—Calliope Hummingbird. Star Hummer.

Description.—*Adult male:* Upperparts golden-green, or shining metallic bronzy green; tail chiefly dusky, rufous at base, paler on tips, slightly double-rounded, its feathers broadening distally and nearly round at tips, the outermost pair touched with white; flight-feathers violet-dusky; sides of throat and underparts white, the sides more or less overlaid with golden-green and dusky; a pale rufous wash across breast and belly and sides, often faintly suffused with rufous; gorget shining rose-purple (Rood's violet, aster purple, or amaranth purple), the color confined to tips of feathers, which are white at base, shot with much outcropping white on chin and throat, and progressively lengthened with suppression of visible white on lower throat, the lateral

feathers much produced to or beyond bend of wing—the whole distensible and radiating in excitement. Bill straight, black above, yellowish below. *Adult female:* Without gorget; throat speckled with dusky or bronzy green; coloration of upperparts, save tail, as in male; central tail-feathers green, tipped with dusky; remaining rectrices greenish gray, mingled with rufous basally, crossed with black distally, broadly but decreasingly (toward center) tipped with white; underparts basally white, but more or less suffused with rufous, especially on sides. *Young birds* resemble adult female, but are still more heavily washed with rufous below and (male only) with more extensive speckling on throat. Length of adult male about 70 (2.76); wing 38.7 (1.52); tail 20 (.79); bill 14.3 (.56). Adult female about 75 (2.95); wing 42.8 (1.68); tail 21.5 (.85); bill 15.6 (.61).

Recognition Marks.—Pygmy size—the smallest of the birds of California, and after the Helena Hummer (*Calypte helenæ*), av. mm 58, and the Vervain Hummer (*Mellisuga minima*), which averages mm 61 in length, one of the least of birds. Gorget of male with *radiating* feathers of rose-purple, distinctive; but female and young difficult to distinguish afield from those of *Selasphorus rufus—less* rufous, especially on rump and tail, where little or none visible in *S. calliope.*

Nesting.— *Nest:* Composed chiefly of white plant-down (seed-pappus), covered externally with fine mosses, gray bark-shreds, or vegetable miscellany, held in place with cobwebs, saddled on horizontal or descending branch (preferably a dead one) of bush or evergreen tree, at any height—1 to 60 feet of record. *Eggs:* 2; elliptical oval; pure white. Av. of 16 eggs in M. C. O. coll.: from Mono Co., 11.7 x 7.72 (.46 x .304); index 66. Av. of 8 eggs taken by Grinnell in San Bernardino Mountains 12.2 x 8.6 (.48 x .34); index 71. *Season:* June; one brood.

General Range.—"Breeds in mountains of Canadian zone from southern British Columbia and southern Alberta, to southern California and northern New Mexico; winters in Mexico south to Guerrero; casual in Wyoming and Colorado" (A. O. U. Com.).

Distribution in California.—Resident in summer in the higher mountain ranges from the upper limits of Upper Sonoran zone to timberline, and from the San Jacinto Mountains north to Shasta and the Warners; west to Mt. Pinos, and to Wildcat Peak in Siskiyou County (Grinnell). Most abundant along the east slopes of the central Sierras. Of more general occurrence during migrations.

Authorities.—Xantus (*Calothorox calliope*), Proc. Acad. Nat. Sci. Phila., 1859, p. 190 (Ft. Tejon); *Feilner*, Ann. Rep. Smithson. Inst. for 1864 (1865), p. 429 (discovery of nest and eggs; at Yreka); *Lucas*, Auk, vol. x., 1893, p. 311 (food); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 219 (habits; nest and eggs); *Widmann*, Auk, vol. xxi., 1904, p. 69 (Yosemite Valley; nuptial flight); *Mailliard, J. W.*, Condor, vol. xxiii., 1921, p. 75, fig. (Lake Tahoe; desc. nesting sites).

ORNITHOLOGISTS have been hard put to it to provide names for these most exquisite of birds, the Hummers. In default of an authoritative dictionary of the Colibrian dialect by a native Hummingbird, we have been obliged to call poetic imagination to the aid of our own poor stammering tongues. The realm of callilithology, chromatics, esthetics, astronomy, history, classical mythology, and a score beside, have been laid under tribute to secure such fanciful and high sounding titles as

Fiery Topaz, Ruby-and-Topaz, Allied Emerald, Sapphire-breasted Emerald, Green-crowned Brilliant, Equadorian Rainbow, Equatorian Sunbeam, Parzudaki's Sun-Angel, Gould's Heavenly Sylph, Fanny's Wood-Star, Compte de Paris's Star-frontlet, Mrs. Stewart's Star-throat, Isaacson's Puff-leg, Baroness de Lefresnaye's Plumeleteer, Blossomcrown, Little Violet-ear, Pallid Hermit, Bearded Mountaineer, Green Mango, Darker-Green Carib, Sparkling tail, Tyrian-tail, White-booted Rocket-tail, Black-billed Streamer-tail, Curve-winged Saber-wing, Julia's Train-bearer, the Sappho Comet, the Circe, Rivoli, and Lucifer Hummers, the Frilled, Spangled, Festive, and Adorable Coquettes, the Charming, Beautiful, and Lovely Hummingbirds, and, last but not least, the truly Marvelous Hummingbird (*Loddigesia mirabilis*). What wonder, then, that with so many children to provide for, Gould, the great monographer of the *Trochilidæ*, should have named this nearly silent, but always beautiful species, after the muse of eloquence, Calliope. Star-Hummer would, however, have been the more fitting name, for the genus *Stellula* is unique in this highly gifted family, in that the gorget of the male is distensible into separate rays of purple, like a halved star.

Taken in Washington *Photo by F. S. Merrill*

CALLIOPE HUMMER, FEMALE

This, the tiniest of our sextette of California Hummers, is also the highest-ranging, at least in the nesting season. It is essentially a mountain-loving species, and is, so far as we have been able to prove, the only breeding Hummer of the higher Sierran slopes. There is a 3000 foot record, by Stephens, of a nest in the San Bernardinos; but 4000 is the usual minimum, and 8000 a better average. In the Canadian zone, therefore, the bird knows no restrictions, save that it does not favor the densely timbered sections. In the Sierras it nests nearly up to timber line, 10,000 to 11,500 feet, and follows the advancing season to the limit

of flowers. Without doubt the mind remembers longest those birds which visit the mountain heather beds, gorgeous with flowers, and varied beyond description. A bit of heather on a northern peak, where we camped at an elevation of 8,000 feet, yielded thirty-two species of plants in conspicuous bloom within a stone's throw of the breakfast table. The Hummers appear to be attracted to the flower-beds by color and position rather than by scent; and as surely as we neglected to rise with the sun, a troop of puzzled honey-hunters hovered by turns over our parti-colored blankets. Once a Hummer minutely inspected a red bandana handkerchief which graced the bird-man's neck; and once, I regret to say it, fluttered for some moments before his nose (sunburned!).

The gorgeous flower-beds of the "cattle country," especially those found on the innermost ranges of San Luis Obispo and San Benito counties, often detain these Hummers, during migrations. On the 21st of April, near La Panza, I observed a male as he fed in the clumps of Owl Clover (*Orthocarpus purpurascens*) or rested on low limbs. Or perhaps one should not speak of his resting, for as he sat he flirted his wings and screwed from side to side in conscious vanity. He *is* a tearing beauty, you know.

But goodness gracious! What an awful temper His Niblets, the Maharajah of Bullypore, really has! Once, in Modoc County, when a Pygmy Nuthatch had, much to my satisfaction, alighted upon the tip of a half-dead juniper, and served notice that he was about to show me his domicile, one of these dashing Star Hummers set upon him so viciously that the astonished bird fell off his perch and hugged the tree trunk instead. Even here the Nuthatch was not safe, for the Hummer darted and buzzed like a giant bumble bee, adding, I believe, a vocal tone to the noise of its wings, until the terrified Nuthatch dropped ten feet further and then fled outright. Very valiant, to be sure, the Maharajah looked as he resumed his station on the topmost twig of the juniper, and let the wind toy with his streaming cravat. Then he caught sight of the bird-man and dived down to utter some offensive threats, grinding them out horribly, as between clenched teeth. I should have heeded, too, if the gallant had been, say, a hundred times bigger.

In common with most of our Hummers, the Calliope conducts an ardent courtship by means of headlong dashes from the sky. It is a sight well worth seeing when one of these elfin gallants, flashing like a jewel and bristling with self-consciousness, mounts slowly upward on vibrating wings to a height of a hundred feet, then darts back with the speed of lightning to make an affectionate pass at the placid lady on a twig below. Or, occasionally, the tactics are reversed, and the amoret settles slowly through the air as though smitten by Cupid's dart, and

invokes the lady's pity on his hapless plight. Pitiful it should be, but the rascal recovers suddenly, bounds aloft and makes again the courting swoop. As he does so, he brings out at the climax a tiny, rasping note—in fact the word "rasp" with a rolled r, thus, *rrraspp*, just about expresses it.

An exquisite honeymoon ensues for the happy pair; but when nature's purposes have been served, the stern madam banishes her ardent

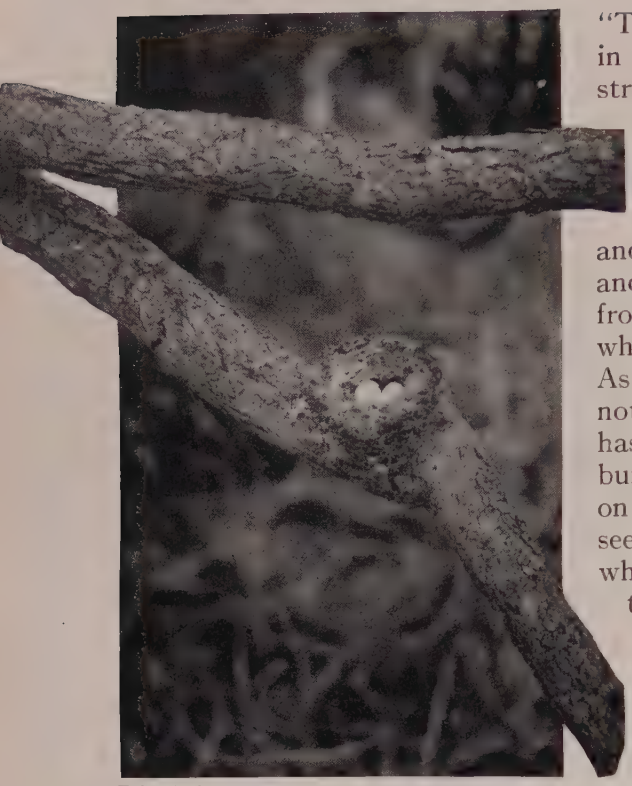
Taken in Fresno County *Photo by the Author*

SLIM PICKINGS!

YET THE CALLIOPE HUMMER IS AT HOME IN JUST SUCH A ROMANTIC SETTING AS THIS, PROVIDED AT THE BASE OF EAST VIDETTE PEAK

spouse, and leaves him henceforth to vent his irascible humors on luckless woodpeckers and wandering chipmunks. The female Calliope is an inconspicuous object, colorwise, but she has a will of her own, and a way which even the collector learns to recognize. As Grinnell says:[1] "There are certain peculiarities of poise and flight impossible to describe intelligibly, which characterize it; and the attenuated and squeaky notes, so faint and difficult to locate, have a quality all their own." Of their occurrence in the San Bernardino Mountains Dr. Grinnell says further:

[1] "The Biota of the San Bernardino Mountains," U. of C. Pub. in Zool., 1908, p. 73.



Taken in San Bernardino Mts. Photo by W. M. Pierce

NEST OF CALLIOPE HUMMER
SHOWING TYPICAL PROTECTION AFFORDED BY OVERSHADOWING BRANCH

"The female Calliopes are wont to stay in the ravines and canons where the streams are lined with columbines; while the dashing males each have a valiantly defended patch of gooseberries or manzanitas, high on the mountain side. The males are pugnacious, and each has his own flower preserve and regular perch (on some bush-tip) from which he drives all intruders, whether of his own species or another. As far as my observations went I saw not the least evidence that the male has anything whatever to do with nest-building or caring for the young. And on only one or two occasions did I ever see a male invade the cañon-bottom where the females were nesting, and then he was routed out by an irate other."

The wing-buzz of a female Calliope leaving her nest has also a distinctive character, and a sweet one to the discriminating ear of the oölogist. It was in this way that I found my first one years ago, in company with Mr. Jack Bowles, in a Washington glade. The nest was saddled on a slender descending branch of a red birch tree, at a point seven feet out from the trunk, and at least twelve feet from the ground. The bird returned to her nest repeatedly as we stood about speculating, and we felt sure she had eggs. The only way to reach the prize was from below, and for this Jack generously offered to hold up a stout pole which I cut hard by. I mounted this hastily, and after mussing the patient man's features with my struggling boots, brought one brogan to rest on his shoulder, while the other sought lodgment upon a knot which projected at least a quarter of an inch from the pole. Then from this infirm but pious support, and being mightily upborne by aspiration, I clutched at the prize overhead with both hands. Determined to secure a portion of the birch limb with the nest, I tucked in a piece of cotton about the eggs, exercising therein such composure as I could command in view of trembling knees and a stream of considerate, soft cuss-words which had begun to

ooze up from the underpinning. Then I bent the limb sharply and slashed it with a knife !! *** ? !! .—As my arms were collapsing after the exquisite strain, a heretofore unnoticed filament of the birch, drooping from a branch above, suddenly began to tear loose from its lashings in the side of the nest, upset the same quicker than a wink, and dashed out one of the eggs.

It is not given to a callous public to appreciate the agony of remorse which ensued. I neither cursed nor wept, but the stars fell about me in great clusters as I sat silent upon the ground and nursed my erring head between my knees. Mr. Bowles' language, however, was beautifully expressive and soothing. The nest—oh, yes, we kept it, and *one* egg—is a shallow, thick-walled cup, felted out of gray bark-fibers, cobwebs, and the cotton of the wild clematis. The exterior is heavily decorated with dead leaves, bark-fragments, and bits of decayed wood. It measures mm 20.5 across, and 14 in depth inside, 42 in width by 26 in depth outside.

In the Mammoth region of the eastern Sierras we found this species in great abundance. They nested in the aspen groves and in the birches which line the lower courses of the mountain streams, and, to a lesser extent also, in the Murray pines. The nests are duller often, to appearance, than any other of our native hummers, still they are invariably assimilated to the color of bark, whether of living or dead limbs. Almost invariably the nest is saddled upon some small descending limblet which enjoys the protection of a horizontal parent stem. This arrangement, while it affords scant protection from storms, guarantees to the sitting bird a certain immunity from falling branches. Nests in the aspen trees, although frankly exposed, are most difficult to find. The aspens of this section are subject to a fungoid growth, or tubercular swelling, which raises black knobs of every conceivable size, but chiefly those about the size of a Hummer's nest. As a consequence, Calliope's domicile is only one of a thousand possibilities.

Accustomed as we are to the confiding actions of Costa and Anna Hummers, we have still a surprise waiting for us in the absolute fearlessness of the Calliope. Danger simply does not exist to the mind of *Stellula* intent upon her motherly duties. One valiant lady, in particular, we shall always remember. Mr. Carriger had traced her to a nest 30 feet up and well out on a descending branchlet, sheltered by a dead limb of a Murray pine. The little lady was on, and she stuck to her post with incredible pertinacity. First Carriger poked her with a long stick. The Hummer simply tilted her head up in the air and dared him to poke any harder. Then I went up and took hold of the bird's beak with intent to lift her off by main force. This was too great an indignity

to be borne, and the Hummer buzzed off,—but was back in a moment. Then, since I could not see the contents of the nest from the place where I was obliged to be in order to reach her by hand, I too went higher, and started to poke her off. Believe me, nothing but main strength of a stick forcibly pressed against her breast induced her to give up and disclose her single white egg,—which was no sooner seen than birdie was back again, defying me to touch her.

This was Friday, June 10th, and a second egg was laid on Sunday. On Monday, after we had, regretfully, performed the duties of our office, William proffered the nest to its mistress and gained instant acceptance. On three occasions she allowed him to carry her, nest and all, for a distance of three or four feet, and so up to his face. Once he clapped his hand over her and could, of course, have held her prisoner. All this, mind you, on an empty nest. But the bird was nothing daunted by persecution, and would have played the game to any length, had human patience lasted.

No. 181

Broad-tailed Hummer

A. O. U. No. 432. **Selasphorus platycercus** (Swainson).

Description.—*Adult male:* Gorget, slightly produced on sides, iridescent purple (between aster purple and amaranth purple); upperparts shining green, with brassy reflections; tail chiefly black, with violet reflections; the central pair of rectrices darker green, at least the next succeeding pair and sometimes the adjoining pairs on either side edged on the outer web with cinnamon; the three outer pairs of rectrices edged with cinnamon on the inner web and tipped with white; throat below gorget abruptly white, shading into greenish dusky of breast and sides; the sides largely tipped with shining green; the under tail-coverts white with greenish tips. *Adult female:* Similar to male, but without purplish gorget, and lacking the shining green of breast and sides; chin and upper throat white or washed variously with orange-rufous; the lower throat and sides of neck flecked with greenish; the sides of breast and sides washed with pale cinnamon; the underparts otherwise more extensively white, or else tinged with cinnamomeous; tail-feathers extensively rufous at base and the three outer pairs broadly tipped with white. Length of adult males about 101.6 (4.00); wing 50 (1.97); tail 30.5 (1.20); bill 17.6 (.69). Females average slightly larger.

Recognition Marks.—Midget size; most like *Archilochus colubris* of the East in general appearance. Purple gorget not rayed (as in *Stellula calliope*), distinctive for range. The female comes into most frequent comparison with that of *A. alexandri*, from which it may be distinguished by the presence of the rufous element upon the sides.

Nesting.—*Nest:* A cup of felted plant-downs, often white, not otherwise lined, but covered externally with lichens, dead leaves, or bark-shreds, held in place by cobwebs; placed 3 to 20 feet high on twigs, horizontal branches, or variously, in

bushes or trees, usually near water. *Eggs:* 2; white; blunt elliptical; av. of 15 specimens (U. S. N. M.) 12.7 x 8.3 (.50 x .33). *Season:* May, June, July; two broods.

General Range.—Western North America. Breeds from Wyoming, southern Idaho, and (probably) eastern Oregon, south to Valley of Mexico, and from western Nevada and the desert ranges of eastern California to western Nebraska and western Texas; winters in Mexico and Guatemala.

Range in California.—Summer resident in the timbered desert ranges of eastern California—at least the White Mountains and the Inyo range, probably the Panamints, Argus, Amargosa, etc.

Authorities.—Swarth, Condor, vol. xviii., 1916, p. 130 (Inyo Mts.); *Grinnell,* Pac. Coast Avifauna, no. 11, 1915, p. 184 (Hypothetical List, Calif. birds); *ibid.,* Condor, vol. xx., 1918, p. 87 (White Mts., breeding); *Dickey,* Condor, vol. xxiv., 1922, p. 135 (White Mts.); *Bendire,* Life Hist. N. Am. Birds, vol. ii., 1895, p. 210 (habits, nests, eggs, etc.).

AN OLD ADAGE runs, the wish is father to the thought. If ever there was a bird wished onto the California check-list, it is the Broad-tailed Hummer. The amiable conspiracy began way back in 1868, when Dr. Cooper recorded[1] a female from Lake Tahoe. This Dr. Grinnell later proved to be a young male of *S. rufus;*[2] and in like manner the astute scholar proceeded to demolish all ensuing "records." The field was clear, then, for Mr. Harry Swarth, who in 1916 published what is undoubtedly the first authentic account of the bird's occurrence within this State, viz., upon the western slopes of the Inyo Mountains, near Independence, May 24, 1912. Even then the discoverer modestly disclaimed credit for a State record, because he didn't have a gun handy, and left it for his junior colleague, Mr. H. S. White, to clinch the record, on the 13th of August, 1917, by taking a nest with young, and the adult female, upon the eastern slope of the White Mountains in Inyo County. A paragraph from Mr. Swarth's account[1] is well worth quoting: "Several times during our stay I was satisfied that I heard the shrill buzz of wings of the male Broad-tailed Hummingbird; but not until our last day at this point (Mazourka Canyon, Inyo Mts.) was I able to get sight of the bird. This noise is as loud and quite as characteristic as in the Rufous and Allen Hummingbirds, though of a different tone; as far as I know it is absolutely distinctive among North American hummingbirds. Acquaintance with the species in the mountains of Arizona had familiarized me with his flight sound, and also with the fact that the birds are frequently most difficult to see in spite of their noisy mode of progression. I was not greatly surprised at my failure to catch sight of the hummingbirds, which I was satisfied were in Mazourka Canyon, but kept on the

[1] Proc. Calif. Acad. Sci., IV., 1868, p. 7, *fide* Grinnell, Pac. Coast Avifauna, No. 11, p. 184.
[2] A Distributional List of the Birds of Calif., by Joseph Grinnell, 1915, pp. 184-185. Condor, Vol. XVIII., May 1916, p. 130.
[3] Condor, XVIII., May, 1916, p. 130.

alert, and finally had a fleeting glimpse of one. On May 24, as we were breaking camp, a male bird with shrill buzz of wings darted in front of me, and passed in the sunlight but a few feet away. Though gone again before I could make a move for a gun, the sight was sufficient to clinch the identification, to my own satisfaction at least, for the green back and top of head, and gleaming red throat, together with the manner of flight, formed an unmistakable combination of characters."

The Broad-tailed Hummer is essentially a mountain-loving species, breeding as the season advances to the very tops of the ranges. The nests themselves are placed at the lower levels (reckoning the ground as base level) and indifferently in bushes, maples, oaks, or evergreen trees. But because much of its range is arid, the vicinity of streams is closely adhered to. The nests are richly ornamented with lichens, if such are to be had; but if not, a covering of bark-shreds, dead leaves, or particles of wood will suffice. The female is a close sitter and will suffer the presence of the hand, being comparable in this respect with the *Calypte* Hummers rather than her own congeners.

No. 182

Allen's Hummer

A. O. U. No. 434. **Selasphorus alleni** Henshaw.

Synonym.—Green-backed Rufous Hummingbird.

Description.—*Adult male:* Similar to adult male of *S. rufus*, but upperparts (except rump and tail) shining bronzy green (duller on crown), the color of back sometimes broken up by outcropping of underlying rufous; underparts, including belly, cinnamon-rufous, changing to white on chest only; tail-feathers without notching or emargination, the two outer pairs smaller and very narrow, the outermost acicular. *Adult female:* Very similar to adult female of *S. rufus*, but with tail as in male *alleni*. Length of adult male 82.6 (3.25); wing 38.6 (1.52); tail 29.7 (1.17); bill 16 (.63). Female a little larger.

Recognition Marks.—Pygmy size; fiery gorget with *green* back of male unmistakable; female indistinguishable out of hand from that of *S. rufus;* outermost tail-feathers less than .10 in. wide (mm 2.5).

Nesting.—*Nest:* Exteriorly of fine green moss (invariably present), occasionally supplemented by dead leaves, flower-heads, etc., or even lichens, bound on with cobwebs, interiorly of white plant-down, or, rarely, of sycamore down; placed chiefly in vines or in sheltered situations against banks, more rarely in trees. *Eggs:* 2; white, as in all hummingbirds. Av. of 24 eggs from Santa Barbara (M. C. O. coll.): 11.9 x 7.9 (.47 x .31). Av. of 16 eggs from Humboldt Co.: 12.2 x 7.9 (.48 x .31). *Season:* February–April; April–June; two broods.

General Range.—Breeds in the Pacific Coast district, narrowly, from northern Lower California to southern Oregon; winters in northern Lower California and Sonora;

during summer dispersal found in mountains of southern California, Arizona, and Chihuahua.

Distribution in California.—Common summer resident in the humid coastal strip south to Santa Barbara and Santa Paula; early migrant, arriving in late January in the San Diegan district; during summer dispersal found in the mountains—Mt. Pinos and southeastward; present throughout the year and possibly resident on the Santa Barbara Islands.

Authorities.—Heermann (*Selasphorus rufus*), Jour. Acad. Nat. Sci. Phila., ser. 2, vol. ii., 1853, p. 269 (San Francisco, summer); *Henshaw*, Bull. Nutt. Orn. Club, vol. ii., 1877, p. 53 (orig. desc.; type locality, Nicasio, Marin Co.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 216; *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 63 (s. Calif. Ids.); *Bassett*, Condor, vol. xxiii., 1921, p. 37, fig. (nuptial flight).

IT IS AMUSING, in the light of later experience, to read the early accounts of the nesting of the "Rufous" Hummer in California. Thus Dr. Cooper,[1] under the caption of *Selasphorus rufus*, solemnly records the finding of a nest on Catalina Island, and mentions that some also build about San Francisco. It remained for Mr. Charles A. Allen, of Nicasio, to discover, in the late Seventies, that the common hummer of the coastal region of California is something different—a perfectly distinct species from *S. rufus*, although closely related to it. We now know *Selasphorus alleni* to be the commonest and in many localities the exclusive species in western California, yielding first place to *Calypte anna* in the southern portion of the coastal ranges. For all that it is so common, it is not by any means the best known, for of our seven species, Allen's is consistently the most retiring and secretive, as well as the wildest when found.

It is on this account that we must look to the oölogist for such scraps of information as we possess about this most interesting species. It is, perhaps, as much as one's reputation is worth in these parlous times of pity to undertake to defend the practice of bird-nesting. But as a hardened offender I shall confess that I have found the keenest delight in the pursuit of Hummingbirds' nests. The quarry, albeit abundant, is so elusive, so tiny, and wrought in so fine a harmony with its surroundings, that the collector is put upon his highest mettle. The quest enlists all the faculties of mind, and requires the most alert attention. A flash, a wing-buzz, a suspected bit of moss—these are the things that must be heeded, if success is to come. The trophies themselves are among the most dainty specimens of architecture the world affords, even if one be so well fortified as to resist the appeal of the two tiny, pinkish, elongated pearls which they contain. Moreover, the quest, ardently pursued, leads most certainly, through its exercise of fine dis-

[1] Ornithology of California, Vol. I., Land Birds (1870), p. 356.

Taken near Santa Barbara *Photo by the Author*

HUMMERS IN CENTURY PLANT

criminations, to an accuracy and intimacy of knowledge of bird life, which can come in no other way. Theoretically, the earnest student should be moved to search, irrespective of the trophy; but practically, he never does. Hence, it comes about that the ultra-sentimentalist gets to know as little of the practical psychology and inner workings of bird life as does the skin-man, whose motto is, "Shoot first and inquire afterward." Without asserting the full recompense of his own bold claim, the writer may say that a certain cabinet in the Museum of Comparative Oölogy holds more of fairy treasure, of fragrant memory,

and of crystallized experience than may be put into a hundred books, or paintings either.

Enter with me one of those narrow canyons in the Santa Ynez Mountains. We will call it an early May day, although that is between seasons for Allens, and a little early for Costas. A tiny mountain stream babbles over boulders, or gathers darkling in pools under the shade of sycamores, bays, live oaks, and alders. The sides of the canyon, now steep, or briefly precipitous, now sloping and climbable, are occupied by live oaks and ceanothus, with a score of flowering shrubs and a host of bright-hued mints, with sages. Under all, there is the tangle and pluck of wild blackberry vines, and these festoon the lesser cliffs, or face you with impenetrable jungles in the open glades. Here Hummers of four species breed. The Black-chins, lately come, are pitching their yellow tents (upside down) in the sycamores and live oaks, without much regard to the water. The Anna Hummers nest anywhere, at any height, save on the ground, or in the vines, but they care less for shade and retirement than do the other species, and their ranks will lessen as we ascend the canyon. Costa Hummers in such circumstances hug close to the water, weaving their little baskets on a descending branch of a willow or a bay tree whose tips nearly drag the water. As for the Allen Hummer the blackberry tangles are her home, and all such other situations as assure a measure of protection from above. Thus, drooping vines falling over boulders offer ideal sites; for *alleni* is also fond of a swing. The most remarkable nest of our experience, a *five-story* one, was saddled upon the hook of a broken root, which was, in turn, caught upon a sprangle of roots above, unearthed by the under-cutting of the stream. This root could be lifted clear and replaced without injury; and its mistress added, in one season, stories No. 4 and No. 5, to our knowledge.

Hummingbirds are passionately fond of their old nesting sites, and will, apparently, use old nests by preference, whenever these have escaped the attention of larger birds intent upon gathering nesting materials. Sometimes, in default of their own nests which have been destroyed, they will help themselves to others. One such nest, a three-story affair, found by J. Hooper Bowles, was started in 1910, by a Black-chinned Hummer. Mr. Bowles found the nest in June of 1911 with a second story occupied by an Anna Hummer, with two fresh eggs, which were not disturbed. Thereafter a Black-chin, presumably the original owner, returned to add a third story and to raise a brood. Allen Hummers are less frequently partners in these composite arrangements, and I have no certain instance where an Allen was the aggressor. On the other hand, the Allen Hummer is more successful than any other in

eluding the public eye, and many-storied nests are, therefore, the rule rather than the exception.

The inner fabric of a nest is compounded of vegetable downs, often of the purest white, but the characteristic decoration is a certain vivid green moss. The Anna Hummer occasionally uses this same moss, though I have only one instance of such exclusive use. Allen, on the other hand, occasionally, though very rarely, decorates with lichens. Careful discrimination is, therefore, necessary, especially since the extremes of size in the eggs of the two species overlap considerably.

The behavior of the female is quite the most interesting part of hummingbird nesting. Usually the only apprisal one has of the presence of a nest is a little momentary electric buzz summoning you—*somewhere*. Oh! that is the point where the search begins in earnest, for the wing-buzz of the departing bird is a sound ventriloquial in its indefiniteness. Or if the bird returns to squeak her disapproval, that may only add fuel to the fire of your anxiety, without being at all illuminating. Once a female Allen, startled from a nest of unknown location, squeaked lustily from the top of a live oak, until she was sure she had our attention, then she set out on a *Himmelfahrt*, a heavenly flight, winging rapidly upward at an angle of 70 degrees until the eye strained to watch her. Nearer and nearer she drifted to the sun until she suddenly lost herself to view in that orb, and we nearly lost our eyesight. It was, I submit, a clever ruse, quite as effectual as the staple trick of the fleeing highwayman who, to baffle his pursuers, wades the bed of a running stream.

Nests with fresh eggs are, curiously enough, more easily found by observation of the bird than those in which incubation is advanced. At first, the bird, with the nest-making instinct still strong upon her, cannot resist the temptation of a floating bit of down, and she sallies forth noisily to capture it, and add it to her nest-lining. Similarly, she uncovers the eggs at frequent intervals to snap at insects or to sip a beaker of honey, before she has learned to forswear these pleasures for her more exacting duties. And no Hummer of refined tastes can be expected to resist the attractions of a cunning bit of moss or a brocaded lichen, but it must be lugged home and added to the collection.

At close quarters some birds are stampeded, and will not even return to the neighborhood while danger is nigh. Others will twitter and squeak, or dash into the intruder's face, or hover before him with waving wings which betoken unquestionable anger. But never yet have I found any so bold as to submit to the hand at the nest, as an Anna or a Costa will often do.

Eggs are deposited on alternate days; and incubation, counting from the deposition of the second egg, lasts twelve. The youngsters

when hatched resemble tiny black bugs. Their bills are mere beginnings, not over one-sixteenth of an inch in length, and serve to point the relationship of this group with the tiny-beaked Swifts and Gnatcatchers, who are also *Macrochires*.

The Hummer diet is not exclusively honey, as was once supposed, but the nectar of flowers is still a large element. For the rest, honey-eating insects, fellow tapsters, found in the corolla of flowers, are largely preyed upon. Along about the first of May all Santa Barbara Hummers, especially the Allens and the Black-chins, are likely to have yellow crowns. They are gathering sweets from a coarse mint, the crimson sage (*Salvia spathacea*), and the yellow pollen of the two protruding stamens adheres to the bird's crown as it pushes its way in. Inasmuch as the style of this plant projects further than the stamens and overarches them, it would seem that this arrangement ought to facilitate self- rather than cross-fertilization.

Taken near Santa Barbara *Photo by the Author*

A CLOSER VIEW

THE HUMMERS ARE NOT GUARANTEED TO BE ALLEN'S, HOWEVER

Although not resident in winter upon the mainland of California, the Allen Hummers return very early to take up the duties of incubation. Dr. Cooper mentions seeing a bird, undoubtedly of this species, on the 5th of February, 1862; and Bradford Torrey saw one at the same place on the 26th of January, 1908. Mr. Bowles established the earliest nesting record in a set taken at Santa Barbara on the 13th of February, 1912. He took another on the 19th of that same month. Nesting,

however, is very irregular, lasting right through March and April, with second sets in May or early June.

At the close of the nesting season the Allen Hummers ascend as they move slowly southward, first the males (who are dismissed for keeps when the second set is laid) and later the females with young. They are, thus, very common in the southern ranges, Mount Pinos, San Jacinto, and the rest, any time after the first of July.

No. 183

Rufous Hummer

A. O. U. No. 433. **Selasphorus rufus** (Gmelin).

Synonyms.—Red-backed Hummingbird. Nootka Hummer.

Description.—*Adult male:* In general above and below bright rufous or cinnamon-red, changing to dull bronzy green over dusky on crown, sometimes touched with bronzy green on middle of back, fading to white on belly and on chest, where sharply contrasting with gorget; bend of wing bronzy green; wing-quills purplish dusky; rectrices rufous, tipped with purplish dusky, the dusky areas elongated mesially, the central pair of feathers broadened and broadly acuminate; the succeeding pair with a deep notch on the inner web, and a slighter emargination on the outer web; gorget somewhat produced laterally, of close-set, rounded metallic scales, shining scarlet, coppery-red, fiery red, or (varying with individuals) rich ruby-red, changing to deep golden green when viewed crosswise. Bill slender and straight. *Adult female:* Above shining golden green or bronzy green, laid over rufous on rump and tail-coverts, elsewhere over greenish dusky; pattern of tail as in male but less decided; central tail-feathers green, tipped with black; lateral feathers chiefly rufous, changing through green to black subterminally, and tipped with white; underparts whitish, shaded with rufous on sides; gorget wanting or represented by a small central patch of separated scarlet flecks. *Young males:* Like adult female but more extensively rufous above, and throat more flecked with reddish metallic scales. *Young females:* Like adult female, but rump green and throat flecked with greenish scales. Length of adult male (skins): 84 (3.31); wing 40.3 (1.59); tail 30 (1.18); bill 16.5 (.65). Female: 85 (3.35); wing 44.5 (1.75); tail 26.5 (1.04); bill 18 (.71).

Recognition Marks.—Pygmy size; abundant rufous of male distinctive; female requires careful discrimination from that of *S. alleni*, and it may be known certainly by notching of next central tail-feather, and by outer tail-feather more than .10 wide; known from that of *Stellula calliope* by tail-feathers broader but *not* expanding subterminally, by narrower primaries, and by larger and less dispersed speckling of throat.

Nesting.—Not known to breed in California. *Nest:* Of plant-down and fine mosses bound together with cobwebs and ornamented with lichens; placed on horizontal or declining stem of bush or tree. *Eggs:* 2; pure white, elliptical oval. Av. size "12.7 x 8.3 (.50 x .33)."

General Range.—Breeds on the Pacific slope of North America from about Latitude 44 (in Oregon) to Latitude 61 (in Alaska), and east northerly to northern

Taken in Oregon

Photo by Finley & Bohlman

RUFOUS HUMMER AT NEST

Idaho and western Alberta; occurs broadly during migrations at all levels, east to Wyoming, Colorado, and western Texas; and during the summer dispersal occupies the mountains of California, Arizona, and New Mexico, and even southwestern Colorado. Winters in southern Mexico.

Distribution in California.—Common spring migrant, chiefly west of the deserts and the Sierras. Late migrants bound for the high north (?) linger into May (Watsonville, May 20, 1914), or even June (San Jacinto Mts., June 2, 1913). The return migrations set in in late June and are more narrowly confined to the higher mountain ranges.

Authorities.—Gambel (*Calliphlox rufa*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1847, p. 32 (Calif.); *Lucas*, Auk, vol. x., 1893, p. 311 (food); *Grinnell*, Condor, vol. iii., 1901, p. 127 (status in Calif.); *Thayer and Bangs*, Auk, vol. xxiv., 1907, p. 312 (hybrid with *Atthis calliope*); *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 71 (San Bernardino Mts., late in summer).

RUFUS! What mighty Norsemen have borne that name! None more worthily than the iron-blooded midget of tropic mould who, among six hundred kinsmen, holds the record of "farthest North." Often have I pitied him as on a March day in the Puget Sound country, with the rain pelting and the mercury at 40°, I have come upon him sheltering in the

depths of a somber fir tree. Or more pitiful still is the sight of shivering babies in mid-April, the air oozing moisture and the mother gone to search for food. But *rufus* would laugh at our solicitude; and as for hardship, he would say, Lead me to it! Hence it is, he ranges along the Cascade crests and ventures among the glaciers of the mighty Saint Elias Mountain. At Mount Wrangell he is 61° north of the Equator, and his only peer in hardihood is the Chilean Fire-crown (*Eustephanus galeritus*), who attains 55° south in Terra del Fuego.

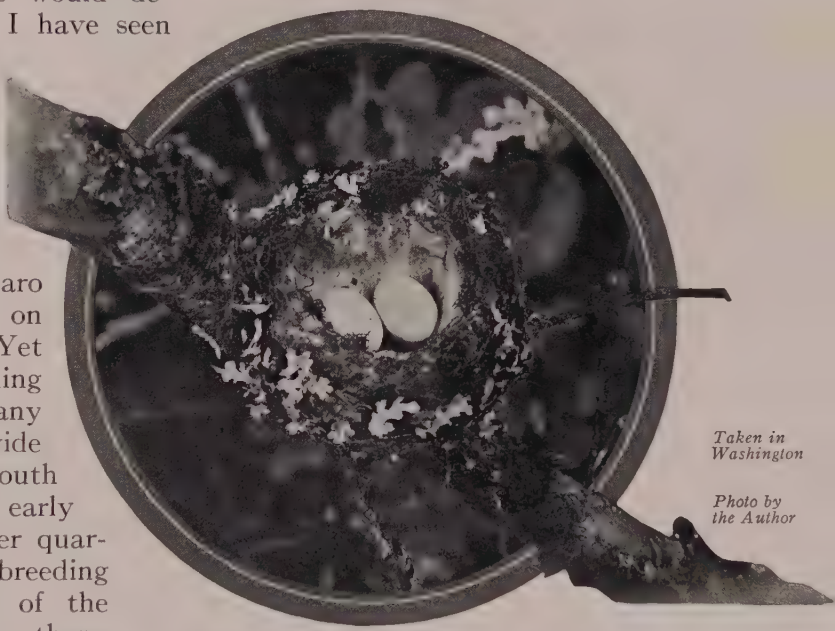
Perhaps it is the abounding conceit of the bird which carries it into such perilous places; but if so, the little spit-fire makes good all along the way. I thought I had seen Hummers before, some tens of thousands of them, but a vision seen on the flowery hills of Shandon (San Luis Obispo County), April 8, 1912, still stands apart in experience. The bird had been moving from flower to flower in the open sage, and came momentarily to rest on a sprig of greasewood. As I saw him quartering from the sun, the center of his gorget glanced molten gold, and his shoulders shot a living flame. As he turned about, his throat-piece darkened suddenly, but whenever it did shine, it was nothing less than cadmium or Saturn red. His back, also, was the very quintessence of rufous, almost flame, and I thought there could be nothing handsomer—until another, his equal, flashed up and displaced him on the same twig.

As the retina of the eye retains for some moments the impression of an object over-bright, so memory, or consciousness, has retained so vivid an impression of this bird of passage, that we have until lately supposed it to be a common breeding bird of California. There was special reason for this forty years ago, before the common summer resident, *Selasphorus alleni*, had been distinguished, or, as it were, dissected out of our blurred impression of *rufus-alleni*. But the dawning knowledge of the presence of *alleni* did not work a speedy cure. Preconceptions blinded the most expert. Thus, C. Hart Merriam could say:[1] "The commonest Hummingbirds of Shasta, breeding apparently, from the lower edge of Shasta firs to timberline, though it is possible that those seen at high altitudes had moved up to feed from the painted cups in the heather meadows after the breeding season was over. At Wagon Camp where they were abundant in July and early August, they seemed to feed chiefly from the scarlet painted cup (*Castilleja miniata*)." Notice that the breeding is inferential and that the actual dates are July and August. The true condition is set forth by Dr. Grinnell:[2] "Common migrant the whole length of the State west of the deserts; in spring through the valley and foothill regions of the Pacific slope,

[1] N. A. Fauna No. 16, Washington, 1899, p. 117.
[2] Avifauna No. 11, "A Distributional List of the Birds of California."

in summer and fall chiefly along the mountain ranges. In spring the species arrives early (March and even February), and some individuals are still about till early May. The return migration begins the last week of June (old males, followed in two or three weeks by females and young-of-the-year)." He also adds: "It is quite possible that *rufus* breeds in the Boreal zone along the central Sierra Nevada." Of course all things are "possible" in a State where the Great Grey Owl (*Scotiaptex nebulosa nebulosa*) could be found breeding, and for the first time within the limits of the United States, after having escaped notice for seventy-five years. But the fact remains, *there are no records.*

The circumstances would deceive the very elect. I have seen the Rufous Hummer at Santa Barbara on the 28th of February (Mr. Swarth has a record at Los Angeles of February 20); and again, the same season, 1914, on the Pajaro River near Watsonville, on the 20th of May. Yet these were not breeding records. Like so many other species having a wide vertical or north and south distribution in summer, early arrivals from the winter quarters hasten on to begin breeding in the southern part of the summer range; while others, knowing that their summer quarters are untenable sooner, linger in the south and pass ultimately over the heads of their resident fellows, to occupy the extreme northern portions of the range. We may not, however, assume the converse, as in the case of certain *Limicolæ*. At least we should rather suppose that the early July migrants which appear on Shasta and the Sierras, as well as the San Bernardino-Jacinto ranges, are birds which, having bred in the lowlands of Oregon and Washington, are combining a vertical migration with a leisurely southern movement. Food conditions on Mt. St. Elias are more favorable in August than they are, say, in the vicinity of Seattle or Victoria.



Taken in Washington

Photo by the Author

NEST OF RUFOUS HUMMER ON FIR BRANCH

The Rufous Hummer

Rufous Hummers are very fond of the blossoms of the eucalyptus tree, and this towering exotic is not only responsible for the presence of a hundred hummers at once, but in a measure also for the withdrawal of the birds from their humbler and more wonted ranges of observation. It is a pretty sight to see hummers as thick as bees, but it is a bit provoking, as well, to think that there may be as many as six species aloft which are no better than one to you. In the north they are more fortunate who can see these hummers swarming about a lowly bush of flowering currant. At such a time there may be a dozen birds about at once. The bush seems fairly aquiver with their vibrating wings. The birds are exceedingly quarrelsome, and the intrusion of a newcomer may be the signal for a general pursuit and much clashing of tongues.

Taken in Washington *Photo by the Author*

TREASURE TROVE FOR THE HUMMERS

COBWEBS ARE LARGELY UTILIZED IN THE CONSTRUCTION OF A HUMMINGBIRD'S NEST

The rattling noise made by the Rufous Hummer is apparently a vocal sound accompanying flight, rather than a by-product of the wing-beat. One morning in Tacoma, we saw a young dandy in a fine fury. His exhibition of temper was undoubtedly on our account, although there seemed to be no precisely defined objective. The bird first *towered* slowly with bill held straight up, as though in infinite disdain. When at a height of 75 feet he darted to one side and then swept down in a passion, giving vent, at the lowest point of the curve, to an explosive rattle of unquestionable ferocity. Then he would face about sputtering and murmuring to note the effect made upon us. Finding us unmoved, rooted to the spot, indeed, with admiration, the little bully repeated the process again and again, pausing only to vary his tactics by a slow and menacing advance with distended gorget flaming in the morning sun. We were cowed, to be sure, and we crept away with the consoling thought that nobody would tell on us if we fled. Or—now, do you suppose there could have been a mischievous coquette applauding softly from behind that screen of dogwood blossoms?

No. 184

Anna's Hummer

A. O. U. No. 431. **Calypte anna** (Lesson).

Description.—*Adult male:* Entire head, save hind crown and sides behind eye, iridescent rose-purple, changing to velvety black and with coppery and greenish reflections, the latero-posterior feathers of throat elongated; wings and tail, except central pair of rectrices, which are like back, purplish dusky; remaining upperparts golden green, with bronzy or peacock-blue reflections; underparts olive-dusky, more or less overlaid, especially on sides, with metallic golden green, and skirted lightly with buffy gray; lightening on throat below gorget and on thighs; tail deeply forked, the central feathers broad and rounded, the others doubly truncated, the outermost pair much narrower. Bill and feet black. *Adult female:* Without metallic feathers on head, save for scattering, rounded, purple spots on throat; nape, back, and central pair of rectrices as in male; pileum greenish or purplish dusky; underparts much lighter, sordid whitish or dull buffy on throat and belly; tail double-rounded, the feathers all broad and rounded acuminate, greenish gray basally and black subterminally, the three outer pairs broadly white-tipped in decreasing ratio. *Young males* approximate to male parent in heavy coloring of underparts, but are more extensively white- or buffy-skirted; the metallic colors appear in patches both on throat and crown; the tail is first like that of the adult female, and the change to adult male characters in this respect does not seem to be exactly correlated with the other changes (as the assumption of metallic scales). *Young females* are like adults, save for some pale margining above and for lack of metallic scales on throat. Length of males about 101.6 (4.00); wing 50 (1.97); tail 31.3 (1.23); bill 18.2 (.72). Females average *a little less.*

Recognition Marks.—Pygmy size; the largest of the California Hummers; rose-purple gorget and *crown* of male distinctive; female may be known out of hand only by large size and absence of rufous; underparts darker and throat more heavily spotted than that of the Black-chinned Hummer.

Nesting.—*Nest:* Of varied construction and position; a dainty cup of mosses and fine plant-shreds bound with cobwebs and usually decorated or covered with lichens; lined with plant-downs, chiefly white or yellow, or feathers (sometimes copiously); placed at any height in bush or tree, or occasionally in sheltered places about buildings. *Eggs:* 2; elliptical ovate, occasionally much elongated. Av. of 30 eggs from Santa Barbara in the M. C. O. coll.: 12.7 x 8.1 (.50 x .32); index 64. Av. of 24 in U. S. N. M.: 13.2 x 8.6 (.52 x .34). *Season:* January–June, but also recorded, or by inference, for every month in the year; one or two broods.

General Range.—Resident in California west of the Sierran divide and in the coastal district of northern Lower California; wandering casually during (or after) the summer dispersal to mountains of Nevada, Arizona, and Sonora, and to the islands off the western coast of Lower California.

Distribution in California.—Common resident in Upper Sonoran areas west of the Sierran divide (thus encircling the Sacramento-San Joaquin Valley); north coastwise to and including the San Francisco Bay region; sparingly resident on the Santa Barbara Islands. The post-breeding altitudinal migration involves neighboring mountains, even to Boreal zones, while not wholly depleting the breeding range. Winters sparingly in the northwest humid coastal district and on the Colorado Desert.

The Anna Hummer

Authorities.—Lesson (*Ornismya anna*), Hist. Nat. Ois-Mouch, 1829, pp. xxxi., xlvi., 205, pl. 74 (orig. desc.; Calif.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 206; *W. P. Taylor*, Auk, vol. xxvi., 1909, p. 291 (hybrid with *Selasphorus alleni*); *McAtee*, Auk, vol. xxx., 1913, p. 155 (feeding habits); *Hunt*, Condor, vol. xxii., 1920, p. 109, fig. (nuptial flight).

Taken in the Ojai *Photo by Donald R. Dickey*

ANNA HUMMER AND NEST, ON DEAD BRANCH OF EUCALYPTUS TREE

SHREWDEST of immortalities, a name! One Anna, sometime Duchess of Rivoli, is held aloft to immortal remembrance in California more surely than as if her statue in imperishable bronze were adorning a space in Golden Gate Park. Lesson, the Frenchman, monographer of

Hummingbirds, spying a new jewel in a recent importation from Mexico, presented it, *Calypte anna*, with a graceful flourish, to his lady friend; and we, forsooth, were pledged to pay vocal tribute to this unknown lady forever. Was she pretty? Was she witty? Was she worthy and wise? We hope so, for her namesake is all of these; and Anna is *his* name for better or for worse.

The Anna Hummer, Hyperion of the Golden West, is the California Hummer *par excellence*. And while we may not endure to match his beauties against the flaming splendors of certain tropical species, we are well content that such a treasure should be in our portion. Look first upon a singing male as he seats himself on a December day upon the topmost wire of a garden trellis. We must look before we listen. Not only the gorget, but the forehead, crown, and sides of neck as well, are seen to be clad in a resplendent panoply of glancing crimson. At a turn of the head the entire foreparts assume one cast of rose-purple; at another, the gorget will go to velvet of some dark nameless tint in relief, while the side of the head will glance with fires of green and copper. And at another tilt of the head the fires will be wholly quenched in a uniform velvety blackness.

As he sings, the minstrel's body sways from side to side, and his earnestness is punctuated by a rhythmical beat of the bill. The notes are of two sorts, irregularly interspersed, and each impassioned series is followed by an interval of silence. *Zzt, zzt, zzt, merk, merk, zzt, zzt, zzt, merk, merk*, feeble enough as a representation of such elfin language, may serve to give the tempo and some indication of the contrasting qualities. At another time the *merk* notes may be wanting altogether, and we shall have a series, sustained and rapid, which nevertheless, for its irregular intervals, as well as its snapping, hissing qualities, suggests the passage of electric sparks.

Although we may flatter ourselves that the gallant is laying siege to our affections, it is ten to one he knows where a lady of his own kind is listening. As sure as she stirs there is instant pursuit, and in the flashing meteoric shower which follows, the male finds time to pour out a flood of murderous slashing or snipping notes. These come in groups of four and remind one absurdly of barber's shears, *huh' uh uh uh, huh' uh uh uh.*

At Los Colibris we have an upstairs sleeping porch and a telephone wire passing outside not six feet from the head of the bed. Here an Anna Hummer has sung to us every season for several years past (and often too early in the morning), until we can fancy an individual distinction in his tones. He often indulges the snipping notes out of mere exuberance of spirits. We call him the barber or the scissor-grinder,

Taken in the Ojai *Photo by Dickey*

ANOTHER VIEW OF FOREGOING

and Mrs. Dawson respectfully proposes Thumb-sized Scissor-grinder as a more descriptive epithet than Anna—the inane.

The established article of Hummer courtship is, as everybody knows, the tower and dive, and this performance serves as well to intimidate enemies as to win favor with the ladies, though why it should accomplish such diverse ends I cannot for the life of me discern. Perhaps there is a subtle difference in quality which escapes our dull perceptions. Anyhow, the male Anna in courting time is very irascible, and is as likely to try conclusions with a man as with a mouse. Upon sighting a fancied enemy, the little spitfire mounts to a considerable height in midair, and then darts down with great velocity, producing at the climax of its parabola a sudden explosive squeak or squawk—actually a little trying to the nerves of the most hardened offender. This focal squawk (whether vocal or exophonic we do not know) is very brief and is much lower in pitch than the courting squeak of the Costa Hummer. It sounds, in fact, like the whistling cry of the ground squirrel (*Citellus*) or of a cony (*Ochotona*).

The courting flight, with the lady seated on an exposed twig, or

modestly hiding in the depths of a bough, is performed with more circumstance. The *squayuck* squeak, or screech, or squawk, is uttered, indeed, at the climax of one downward flight; but the curve of flight on this portion is slight and the speed terrific. It is the grandstand play for an audience of one. After each dash the speed king manages a quick recovery and returns to hover for some moments over his enamorata, as if for applause. The chances are the lady isn't handing out any bouquets today. Nothing daunted, the impetuous suitor ascends, almost vertically, with fiercely vibrant wings, swings over to a proper distance and repeats his dash. Birds do not perspire, but our hero evidently earns his bread by labors more strenuous than sweat of the brow. The coy minx in the grandstand, she knows how to appear quite indifferent, to be sure, but if she does not look out she will overplay the part. Bowles narrates an instance[1] where a swinking swain, outraged at last by the coldness of his lady love, paused before her, and gliding slowly up seized her rudely by the beak and dragged her highness headlong from the perch.

It is thus undoubtedly that hearts are won, for I have witnessed the nuptials—tented all in a bower of oak-leaves. The nuptial kiss occurs as well in midair as upon an oaken bed, but always close to cover and always to a fierce accompaniment of squeaks in which both sexes participate. Indeed, so ingenuous are these happy children of nature that it is best not to be too inquisitive when one hears a fairy bedlam in the garden.

The amours of the Anna Hummer have not always been conducted within the bounds of the species. As a result of these divagations, several hybrid forms have been recorded. The most famous is that between *Calypte anna* and *Selasphorus alleni*, once described as *Selasphorus floresii* Gould, of which four examples, all probably Californian, now exist in collections. Another, described from Santa Barbara, *Archilochus violajugulum* (Jeffries) probably represents a union of *C. anna* and *Archilochus alexandri*. Hybrids of *Archilochus alexandri* + *Calypte costæ* and *Selasphorus rufus* + *Stellula calliope* have also been noted, but none of these unions appear to be fertile in the third generation, and they remain curious examples of misplaced affection, rather than phylogenetic factors with which the scientist has to reckon.

During the honeymoon Anna—Mrs. Anna now if you please—has contrived to slip away from her insistent lord and has spread a foundation of cobwebs over the bare shaft of some limb where she intends to rear her nest. The pappus of seeds, especially of the willow, and a dozen other sorts of vegetable down, are felted together and bound with cob-

[1] "The Condor," Vol. XII., July, 1910, p. 126.

webs, which the mistress deftly spreads with her needle beak, the while she moulds a hollow with her breast. In this way a noble structure can be balanced accurately and lashed securely to the slenderest twig, though Anna is rather more given to broad foundations than is the Black-chin, say.

As like as not the first egg arrives while the nest is only half completed. No matter—the half-done hollow will suffice for now, and the structure will be passably done by tomorrow, when the next arrival is due—or by the day after at most. As for the decorations, they can be added any time, a bit of moss here and a bit of lichen there, or a feather snatched when the mistress is returning from some foray after insects or morning dews. Your ready-furnished flats are vulgar, anyhow, and it is much more satisfactory to a taste like Anna's to be able to select the adornments of her home with deliberation and discriminating care.

Taken near Santa Barbara *Photo by the Author*

ANNA HUMMER ON NEST

As to the male bird, he has no part in these festivities. Not only is he forbidden to assist in the building of the home, but he is banished forever from its sacred precincts. So complete is the rupture between these elfin mates, that we do not even know whether the male bird leads henceforth a disconsolate existence, wedded to fond memories, or whether he presently lays siege to other hearts. These are frail children of the sun, and we must not seek to apply our own laborious standards of conduct to them.

Dum vivimus vivamus is the Hummer's motto—and what else could you expect of a creature whose blood is always at fever heat (variously estimated at from 111° to 114° Fahrenheit), and who must forever quench a raging thirst with honey?

Careful and extended experiment has shown that a hummingbird may subsist entirely upon sweetened water. It is certain, therefore,

that however much the average diet may be varied by insect food, the nectar of plants is still the staple element with most species. Professor and Mrs. Charles Frederick Holder, of Pasadena, once kept an Anna Hummer within doors for nearly a year on a diet of sugar-and-water varied only by offerings of flowers. Miss Althea R. Sherman, of National, Iowa, in a series of open-air experiments with the Ruby-throated Hummer, found that the creatures will consume an average of from 70 to 90 grains of pure sugar daily, an amount equal to a cube of bar sugar or a level teaspoonful of common 'granulated' sugar. This amount, moreover, is more than twice the average weight of the bird. If we humans were determined upon such high living, we should have to consume 300 pounds of sugar apiece per diem! Alas, for daddy's purse, and alas for our poor livers!

Anna's Hummer is fond of the sap of our common willows (*Salix lævigata* and *S. lasiolepis*). It will also follow the Red-breasted Sapsucker (*Sphyrapicus ruber*) into the orchards and glean eagerly from its deserted borings. A catalogue of Anna's favorite flowers would be nearly equivalent to a botany of southern California. But if one had to choose *the* favorite it would probably be *Ribes speciosum*, our handsome red flowering gooseberry, for it is upon the abundance of this flower that Anna relies for her early nesting. In watching a female feeding in one of these bushes we were interested to note that because of the density of the foliage the bird felt obliged to alight, and did so whenever favorable opportunity offered. At times it would discontinue the wing motion altogether and would rifle the neighboring flowers from its perch. At others the wing stroke was only retarded to such a degree as to become noiseless, but was still too rapid for the eye to follow. The bird threaded the mazes of the shrub fearlessly and there was frequent sound of contact between wing and foliage, but it is certain that the bird took care to avoid the fierce-looking thorns which beset the plant, and which would seem to a novice sufficient to have discouraged entrance altogether. Once the bird clung to the under side of a twig, Chickadee-fashion, and if Brooks had drawn her so in his plate, every ornithaster would have scouted.

But Anna is a bit of a flycatcher too. She will buzz off a twig to make connection with some object to us invisible, or she will quit her nest to rescue some victim of the spider's toils, and, perchance, to gobble the ogress herself. In these and other ways a heavy grist of little beetles, flies, spiders, tree-hoppers, and tiny wasps goes to the account of that winged furnace of high caloric. Insects are fed to the babies at a very tender age, according to one authority within 24 hours of their hatching.

Photo by Donald R. Dickey

A SWEET BUD

THIS IS A BLACK-CHINNED HUMMER—NOT AN ANNA

Incubation with the Anna Hummer lasts seventeen days, a good deal longer than is customary with our other Hummers. Bowles has noticed[1] that the albumen of Anna's egg is thick and gummy in comparison with that of other species, and we surmise that this is the concomitant condition of some special cold-resisting property, as in the case of ducks' eggs. The infants, when they do come, look to our Brobdignagian eyes more like baby bumblebees than baby birds. They are shamelessly naked, too, and it is small wonder that their young mother, after having braced herself with copious drafts of mead, returns to assassinate her changeling brood. At least, so it would appear—but perhaps we are mistaken, for Finley says[2] of another species nowise different in this respect: "After she [the mother Hummer] had spread her tail like a flicker to brace herself, she craned her neck and drew her dagger-like bill straight up above the nest. She plunged it down the youngster's throat to the hilt, and started a series of gestures that seemed to puncture him to the toes. Then she stabbed the other twin till it made me shudder. She was only giving them a dinner after the usual hummingbird method of regurgitation, but it looked to me like the murder of the infants."

[1] Or. cit., p. 127.
[2] The Condor, Vol. VII., May–June, 1905, p. 60.

By all accounts the youngsters are very hardy, for their birth-month, February, knows how to be blustery and raw sometimes, even south of Tehachipe. Since the mother has sole care of the brood, they are left uncovered for long spaces, whatever the weather. Miss Mollie Bryan, of Orange, tells of a home which enjoyed the shelter of her woodshed:[1] "One of the little ones thrived wonderfully, stretching the nest to accommodate its increasing size. By another three weeks (i. e., since hatching) the nest was almost in tatters, and the robust child decided to leave. As it spread its wings to fly away the weakling brother fell to the ground. Kind hands rescued it, the torn nest was carefully drawn together and I placed it within, for we supposed, of course, the mother would come to feed it, but she did not. All day it lay without food. That night a rain came and the next day it seemed chilled and almost lifeless. Flowers were placed near it that it might find food within if it would. Another cold night passed, and we thought sure the life of the little one would be ended, but when the warm sun came it raised itself, stretched first one wing, then the other, and with a last look at its human friends darted away to be lost in bird-land."

Hummingbirds, one sees, even though they be so frail, possess an amazing vitality or recuperative power. But it is not too rare an experience to find one stranded, or numbed with the cold; and, to cite the extreme instance, the big freeze of January 2nd, 1913, undoubtedly cut down the resident hummer population of southern California (all Annas) one-half. It is quite worth while upon finding such a waif to try various methods of first-aid. The first expedient is, of course, heat—that of the closed hand may suffice. Or, it may be that the little engine only lacks "gas." Sweetened water, of a pretty strong solution, offered in a pipette, or medicine dropper (pressed upon attention, or flooding the bill until the tongue gets the flavor), will sometimes resuscitate a fallen hummer like a magic potion. It is, in fact, a sort of hummingbird brandy without any reaction or bad taste in the mouth.

Apropos of these waifs, a missionary friend tells me that in southern Chile a certain species of hummer, probably a *Eustephanus*, habitually weathers extended storms and bad nights in a comatose condition, clinging by the feet, to a twig, but hanging head downward, much like a chrysalis, in the densest cover it can find. Some perish in this fashion, but most of them revive with the returning sun, or upon the approach of milder weather.

The Anna Hummer holds the record for early nesting in California. Much depends, of course, upon weather and flower conditions; but in a favorable season there is a general stir of activity among the resident

[1] The Condor, Vol. IV., March, 1902, p. 35.

hummers in late December, and a prospect of nests by the first week in January, although not above one-tenth of the total population is involved so early. The earliest authentic record appears to be that of A. J. McCormick[1] who took two considerably incubated eggs near Los Angeles on the 21st day of December, 1895. Mr. W. Lee Chambers took a fresh set at Santa Monica on the 4th of January, 1903, and eleven other nests during the same month. The pace quickened sharply in February, when he found forty nests. Mr. J. H. Bowles gives January 5th, 1910, as his first record for a complete set at Santa Barbara; but on the 3rd of that month he saw a well-grown young bird which, although not in the nest, was receiving attention from its mother, and which must, therefore, have been an egg no later than the 26th of November. February and March are undoubtedly the months of general activity, but nesting goes right on without much regard to rhythm or order till July; and there is one record, that of H. Robertson, of Pasadena, for August 17, 1900.

Anna enjoys the widest range in the choice of nesting sites. All the forest trees are utilized, but chiefly those within easy reach of streams. Sycamores are favorites, and the mountain laurels are not forgotten. The structure may be lashed to a twig no larger than a baling wire, or anchored more amply on a horizontal limb several inches in diameter. Anna has a fondness for sheltered places, though not so marked as that of *Selasphorus alleni*. Dangling rope ends under porches, electric light fixtures, hanging baskets, harness hooks, coils of wire in outbuildings, all these recall to the bird the choicest offerings of nature's out-of-doors, and she will adventure them with only half a chance. The Potter Hotel of bygone fame had along its east aspect a verandah some thirty feet wide where guests promenaded freely, or listened to band concerts. Large windows from the lobby looked out upon the verandah, and opposite each, just outside, swung a graceful basket of drooping vines. Upon an underhanging tendril of one of these baskets an Anna Hummer wove a basket of her own and in it laid two valiant eggs. Here, twenty-five feet from sunshine, she held high court, now flashing off to seize a midge, now swapping compliments with important dowagers, or picking wistfully at their proffered jewels. Gilded youths paused before her in astonishment, while authentic financiers plucked fat cigars from their faces and said, "Well, what do you know about that!" I saw her on the 15th of April, but whether she succeeded in raising her children in that expensive atmosphere, or whether she was later evicted by the mighty Milo, I could not ascertain.

It is not alone because the Anna Hummer is resident that it has endeared itself to the Californian. It is rather because of the amazing

[1] Grinnell, Pub. 2, Pasadena Acad. Sci., 1898, p. 28.

confidence which the bird displays. An Anna possessed by the mothering instinct will submit to many indignities before she will desert her post. The first nest I ever saw was pointed out to me by Mr. Bowles. After photographing it to satisfaction, I dared my companion to try to touch the bird in the nest. To my astonishment he succeeded in doing so, raising a finger slowly from below and displacing a dainty wing without visible annoyance on the bird's part. Next I took a turn and accomplished the same thing. I raised the drooping wing and crossed it over her back. Birdikins patiently replaced it. I did it again, and she glanced down at the offending hand with mild protest. "If you please, sir, I prefer to have my wing down, so-fashion." Could anything have been sweeter and more appealing! Of course that set was "spoiled" for any collection.

My next venture was no better. An empty nest had been found on a slender horizontal branch of a sycamore tree. Returning the next day when there should have been only one egg, I found the little mother seated. By all analogies she should have buzzed away in wild alarm. Allen or Black-chin or Rufous, yes; but not Anna. Arrived abreast I shook the branch, but Anna only looked troubled. I swayed it to and fro, and she thought it great fun. I said, "Shoo" and she opened her eyes in mild surprise. Aw, what's the use! We are no Annapophagi!

Nests of the Anna Hummer vary in construction perhaps more widely than those of any other local species. Some are massive and as heavily adorned with lichens as those of the eastern Ruby-throat. Perhaps it is necessary to say adorned *externally*, for a Ruby-throat's nest in the M. C. O. collection is also lined on the inside of the cup with lichens. Plant-down is, of course, the staple ingredient for wall construction, and this often appears unadorned in the lining; but Anna has also a penchant for feathers. These may be as few as one or two set rakishly on the rim, or they may constitute a perfect pillow. Sometimes the wall curves inward slightly toward the top, but the walls are usually round-edged and heavy. As for size, they are just large enough to accommodate the bird's body, and that is about as indefinite as the bird is. One nest in the M. C. O. collection is .75 inches across inside and contains eggs .60 inches long. Whoppers, to put it mildly! Mr. Bowles took a set on February 17, 1912, in which both eggs were double-yolked.

At the close of the breeding season some of the Anna Hummers follow the flowers to the higher levels, but the movement is irregular and apparently insusceptible of exact definition. Obviously, there is not "room at the top" for all; so the lower levels are never quite deserted. Also, this upward movement appears to take a northward trend, so that Anna Hummers appear in late summer in the Siskiyou Mountains and on Shasta,

though they are not known to breed within a hundred miles. Northern "winter" records (really late fall) also exceed the breeding records by a degree or so. There is evidently some uncertainty attendant upon the autumnal retreat, and there are a number of desert or Lower Sonoran records for winter, but none for the breeding season.

No. 185

Costa's Hummer

A. O. U. No. 430. **Calypte costæ** (Bourcier).

Description.—*Adult male:* Head all around, with latero-posterior extension of throat feathers, metallic violet-purple, changing to velvety black or with light blue reflections; flight-feathers and lateral rectrices purplish dusky; remaining upperparts shining bronzy green (golden green or peacock-blue with changing angle of vision); dusky shading of underparts nearly confined to wing-linings; sides of breast and centers of lower tail-coverts (where overlaid with bronzy green) shading through buffy of chest to clear white in definition of gorget; femoral tufts and edges of lower tail-coverts white; tail double-rounded, the outermost feather very narrow. Bill straight, black; feet black. *Adult female:* Without metallic feathers on head, save for flecking very variable in extent on upper portion of throat; green of back as in male, but forehead and crown drab or grayish brown, a fainter tint of drab blending on sides of head and neck; underparts nearly uniform dull buffy or sordid whitish; tail rounded (scarcely double-rounded) with colors and proportions as in *C. anna*. *Young male:* Much like adult female, but upperparts nearly uniform bronzy green, heavily margined with buffy; throat more heavily shaded and gorget of adult outlined, the metallic feathers first appearing on the *lower* portion of the throat. *Young female:* Like adult female, but drab of head more extensive, and throat unflecked. Length (sexes about equal): 85.1 (3.35); wing 44.4 (1.75); tail 22.6 (.89); bill 17.2 (.68).

Recognition Marks.—Pygmy size; violet-purple gorget and *crown* of male distinctive; the female, although a little smaller, is nowise distinguishable in the field from that of *A. alexandri*. Indeed, the only certain distinction in hand is generic—*C. costæ* lacks the curious tooth at the subterminal angle of the inner web of the inner primaries, which is the subtle birthmark of the genus *Archilochus*. A ready but by no means infallible field distinction is, however, afforded by the difference in nest structure (*q. v.*).

Remark.—The nearly distinction-defying similitude of the females of *Calypte costæ* and *Archilochus alexandri* ought to guard taxonomers against the folly of generic separation of these two groups. The males, to be sure, are strikingly, though quite superficially, divergent in two respects; viz., the invasion of the crown by metallic feathers (in the *Calypte* group) and the reduced inner primaries of the *Archilochus* group. But all distinctions in the case of the females reduce to a pitiful atom of a projection on the webbing of certain primaries (in *Archilochus*),—a fairy wisp of evidence which would scarcely serve to distinguish twins to their own mother.

Nesting.—*Nest:* Of highly variable construction; typically a dainty cup of vegetable downs, decorated externally with yellow-sered or gray leaves and plant-

shreds, according to setting, and bound with cobwebs; less typically, compacted entirely of gray, weathered materials—sage-flower bracts and withered leaves—and lined coarsely with dark feathers; placed on dead weed or bush of desert or chaparral, or else at moderate height on descending branch of tree overlooking water. *Eggs* average 12.2 x 7.9 (.48 x .31) (Bendire). *Season:* May–June; one brood.

General Range.—Breeding in southern California, southern Utah, Arizona, southern New Mexico, and Lower California with its adjacent islands; wintering in Lower California and northwestern Mexico.

Distribution in California.—Breeds chiefly in Lower Sonoran zone of southern California, north on the east side of the Sierras to the head of Owens Valley (Silver Creek, May 26, 1919), and in the interior portion of the southwestern coast ranges to southern Monterey County (San Ardo). Has occurred casually at Haywards (J. G. Cooper) and Oakland (McGregor) and, in winter, on the Colorado Desert (Grinnell). Breeds sparingly on the Santa Barbara Islands.

Authorities.—Xantus (*Atthis costae*), Proc. Acad. Nat. Sci. Phila., 1859, p. 190 (Ft. Tejon); *Gault*, Auk, vol. ii., 1885, p. 309 (Arrowhead Springs, San Bernardino Co.); *Lucas*, Auk, vol. x., 1893, p. 311 (food); *Grinnell*, Condor, vol. xiv., 1912, p. 154 (Palm Springs, Feb.); *Palmer*, Condor, vol. xx., 1918, p. 114 (early hist.); *Tyler*, Condor, vol. xxii., 1920, p. 190 (San Joaquin Valley, breeding).

NATURE has never staged a more thrilling form of entertainment than that provided by the male Costa Hummer for the delectation of his lady love. It is not alone that the intoxicated suitor hurls himself from the heights of heaven in vehement protestation of his love—all our hummers do that—but this one has evolved as an accompaniment a sound which I believe to be the very shrillest in the bird world, and one which is fairly terrifying in its intensity. This sound is generically like that produced by the Anna Hummer, but it is much more prolonged and more dramatic, more, in fact, like the shriek of a glancing bullet, or a bit of shrapnel.

The lady, who has cultivated a taste for this sort of music, sits demurely upon a bit of sage not over two feet from the ground. The performer mounts dizzily to a height of 100 or 150 feet, then hurtles down at a speed several times that of mere gravity, intending thereby to make the parabolic climax the swiftest possible, and to vault back into the sky with the same impulse. The shriek begins when the hummer is about a quarter way down, gains in intensity until the climax of the curve is reached, and diminishes to the vanishing point as the momentum is spent. Talk of honeyed accents of love! This must sound like the very devil to the enamorata, coming, as it does, within six inches of her head. But she evidently enjoys it, for the performance is repeated again and again. Indeed, about twenty rounds appears to be the authorized number. And as a grand finale, the ethereal acrobat goes reeling off into space like a drunken comet, describing a zigzag course until

Taken in Ventura County *Photo by D. R. Dickey*

RIVALS
WE VOTE FOR THE HUMMER

completely lost to sight. This, to me, is the most astonishing part of the whole performance, this heavenly swagger with which our Lothario leaves the stage. Perhaps he has received some sign of the lady's disfavor, or perhaps, as is more likely, he must quench his fires in a cooler atmosphere.

One would suppose that such gallant attentions should gain a life-long affection. So careful an observer as Frank Stephens narrates[1] one instance where a male Costa was allowed to assist in building a nest. The resplendent fellow gathered in a spider's web and then betook himself to a distant structure on a sycamore limb, which the observer had not seen before. Perhaps the very ease with which the observer discovered the secret is nature's reason for dispensing with the services of the male. Anyhow he is a nuisance.

The lady whose portrait is next shown was discovered on two fresh eggs in a weed patch near the San Jacinto River. Returning in the afternoon with photographic gear, we found the lady not at home. But while we wondered, a lively scrimmage broke out near at hand. A pair of hummers were at it hammer and tongs, though whether in a friendly

[1] Bendire, Life Histories, Vol. I., p. 203.

bout or bloody fight we could not at first tell. We did, however, hear sundry squeaks of the quality but not the duration of the male's courtship screech, and these led us to suppose that the sound is really vocal and not one made, as others have surmised, by the rush of air against set wings. After a moment one bird emerged from the blur and buzzed off for the hills, rather wobbly as to manner, but very definite as to purpose,—which was, manifestly, to get as far away from that irate female as the Lord would let him. We had witnessed one of those painful passages which mark the inevitable rupture in the domestic relations of all hummingbirds. Immediately thereafter the more deadly of the species took her place upon the eggs, and she swayed so gracefully in the wind, and she sat so nicely for her portrait, and vindicated so completely her right of ownership, that we left her, as her erstwhile lord had done, in undisputed possession.

But the manner of this portraiture deserves a word, lest our readers should suppose our honors too hardly won. On this occasion it was no time at all until my assistant was holding the weed-stalk so as to keep the bird in the sun; and only a little while later he could stroke her breast. Once or twice she broke away when William started to oust her with a finger, but our last passage was a *tete a tete*, in which I

Taken in Riverside County *Photo by the Author*

LADY COSTA

pressed my red nose against the dainty beak, quite unrebuked.

The Costa Hummer is not so well known as its congener, *Calypte anna*. This for three reasons, easily defined. In the first place, the

Taken in Riverside County *Photo by the Author*

COSTA HUMMER IN YERBA SANTA

birds are not residents, as the Annas are. Though it has been detected in winter at favored stations on the Colorado Desert, the bulk of the species retires to Mexico and Lower California to winter, and does not return till late March or April. The range also is much less extensive than that of Anna, or indeed of any other of our California species; and any occurrence north of the Tehachipe or Santa Barbara County is counted noteworthy. Finally, Costa's Hummer is a bird of the deserts and the friendly chaparral. More definitive still is the bird's attachment to the white sage (*Salvia apiana* Jepson or *Ramona polystachya* (Benth.) Greene), for not only does the hummer share the aromatic nectar of this plant with the bees, but it uses the leafy bracts to adorn its modest nest, or to subdue it to a harmonizing grayness.

Desert washes, therefore, and sunny sage-clad hillsides have first

choice as summer homes of the Costa Hummer. But in the southern portion of its general range its local occupation is pretty complete. Dixon at Escondido finds it nesting in the orange or lemon groves or olive trees, and in the dead cockle burrs of a river bottom, as well as upon the cliffside bushes. Along the San Jacinto River, at an elevation of 2100 feet, we found the birds very abundant in a coarse gray weed (*Eriodictyon*) which lined the river's flood plain, as well as in the more open chaparral of the hillsides. Dead yucca-stems were also favorite nesting stations; and the materials used harmonized perfectly with the weathered silvery gray of the plant stalks. At Santa Barbara the Costa Hummers join their fellows of three other species in seeking sites close to running water. Before the big flood (that of 1914) tore out the finer covering of the stream-bed, we could find half a dozen nests in a morning's stroll any day in early June. These would be in oaks, alders, sycamores, or bays, and sometimes within two feet of the water. Again, I have taken eggs high up in the heart of the Santa Ynez range, above the nesting of the Western Tanager and California Purple Finch, in near-Transition territory. These northern breeding birds seem to live especially secluded lives, and though we know exactly where to find their nests, the birds themselves scarcely figure in local horizons.

Taken in Riverside County *Photo by the Author*

COSTA HUMMER IN DEAD YUCCA

The Costa Hummer

Of the occurrence of this bird in the desert ranges, Dr. A. K. Fisher says:[1] "Costa's Hummingbird is the common species of the desert valleys and mountains of southern California and Nevada * * * the only species met with by Dr. Nelson in the Panamint and Grapevine Mountains, where he found it a common breeder during May and June. * * * In the Argus Range the species was very abundant and several of its nests were found. Various kinds of plants were used as nesting sites, though the branching cactus (*Opuntia echinocarpa*) was most commonly chosen. Usually the structure was placed on the top of a lower branch, a foot or so from the ground, and under an overhanging mass of thick spiny branches, which formed a protection for the parent bird from the sun and weather, as well as its enemies. At Coso one of these hummers was seen on a bright moonlight evening hovering over a bunch of flowers

Taken in the Mohave Desert *Photo by Wright M. Pierce*

COSTA HUMMER AND NEST IN *Opuntia ramosissima*

[1] Ornithology of the Death Valley Expedition, N. A. Fauna, No. 7, 1893, p. 57.

and was heard again later in the same night. * * Just at daylight on the morning of June 25th, before the shadow had risen out of Wild Rose Canon, a Costa hummingbird came and hovered within a foot of our camp fire, probably mistaking it from a distance for a bunch of buff flowers. It was observed on several occasions that any *brightly colored* object placed in a conspicuous position attracted the bird."

Bendire's description of the nest is perfect:[1] "The nests of Costa's Hummingbird do not compare favorably in architectural beauty with those of the preceding species [the Black-chinned Hummer]; the materials used are not so thoroughly felted or quilted together, and the inner cup has, ordinarily, a rather slovenly appearance. It is externally composed of plant down or fine shreds of plant fiber; the outer walls are thatched more or less profusely, in different specimens before me, with bits of gray lichens, fine shreds of bark and small dry leaves, and these are securely fastened in place by spider webs and silk obtained from cocoons. The inside is lined with plant down, and occasionally with finely shredded plant fibers and small fluffy feathers. In some examples feathers are very prominent among the inner lining. An average specimen measures $1\frac{3}{8}$ inches in outer diameter by 1 inch in depth. The inner cup is about seven-eighths of an inch in diameter by one-half inch in depth."

The eggs, always two in number, are dull white in color, elongate elliptical in shape, and a little smaller than those of *C. anna*. Deposition occurs on succeeding days, and incubation, according to one authority,[2] lasts for 14 to 16 days; according to another,[3] nine or ten days. This discrepancy is doubtless due in part to the irregularity with which different birds *begin* incubation. Some brood from the laying of the first egg. Others loaf around a day or so after the deposition of the second. Under favorable circumstances the young birds fly in from ten to fourteen days.

The smallest bird's egg on record is probably the one taken in a Costa's nest by Nelson Carpenter at Escondido, June 11, 1905. This tiny atom, technically known as a "runt," is about one-fourth the normal bulk and measures .29 x .21 (mm 7.37 x 5.33). No regrets for the present tense, please, for the little pearl contained no yolk and so never could have hummed.

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[1] Life Histories, Vol. I., p. 205.
[2] R. H. Lawrence, quoted by Bendire, Life Histories, Vol. I., p. 203.
[3] J. B. Dixon: Condor, Vol. XIV., March, 1912, p. 76.

No. 186

Black-chinned Hummer

A. O. U. No. 429. **Archilochus alexandri** (Boucier and Mulsant).

Synonyms.—Sponge Hummer. Alexander Hummer.

Description.—*Adult male:* Upperparts, including central pair of tail-feathers, black, overlaid with shining bronzy green and blue-green; wing-quills and remaining rectrices purplish dusky; wing-quills sharply and diagonally truncated; tail double-rounded, the central pair of feathers broad and mildly acuminate, about .12 (4 mm) shorter than remaining feathers, which are narrow and sharply acuminate; gorget chiefly opaque velvety black, the posterior portion showing rich violet reflections; underparts chiefly dusky, on sides heavily overlaid with bronzy green with narrow white skirtings, elsewhere more relieved by white edging; white sometimes attaining clearness on middle of belly and (usually) sharply defining lower edge of gorget. Bill slender, straight, black; feet black. *Adult female:* Upperparts similar to those of male; but underparts chiefly sordid white; some faint tawny or dusky shading on sides; throat nearly immaculate, or finely and sparingly speckled with dusky; tail quite different; central pair of feathers much as in male, the remaining pairs much broader, greenish at base, purplish black subterminally, broadly and decreasingly tipped with white, the outermost feather not noticeably emarginate on the inner web (as is the case with *A. colubris*); primaries somewhat more rounded. *Young male:* Like adult female, but feathers of upperparts edged with pale buffy; and underparts more strongly suffused with pale brownish; throat more speckled. *Young female:* Like young male, but throat immaculate, or speckling reduced. Length of adult male about 88.9 (3.50); wing 42.7 (1.68); tail 25.4 (1.00); bill 19.1 (.75). Female, length up to 101.6 (4.00); wing 47.5 (1.87).

Recognition Marks.—Pygmy size; black gorget of male distinctive; best field characters of female consist in lighter coloration of underparts, the reduced (or wanting) speckling of throat, and the more blended shading of sides of head and neck (or breast, when shaded).

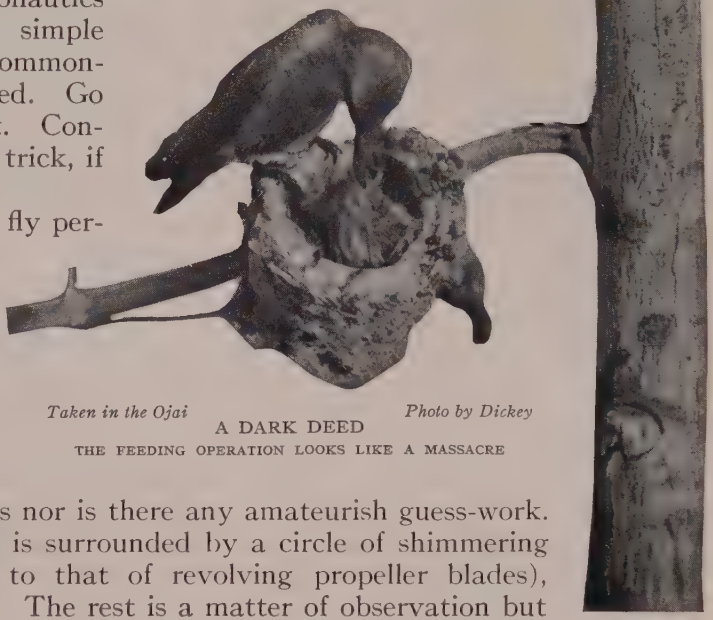
Nesting.—*Nest:* Typically, a deep, thin-walled cup with incurved edges, and composed exclusively of the pubescent down of young sycamore leaves, bound together with cobwebs. In default of this yellow material the bird will use white plant-downs, or compacted shreds variously decorated and lined. Placed on slender descending twigs or horizontal branches of bush or tree, usually at moderate heights and often over water. *Eggs:* 2; white, elliptical oval, often blunt-ended. Av. of 53 (U. S. N. M.) 12.7 x 8.3 (.50 x .33). *Season:* May, June (at height about May 10th); one or, rarely, two broods.

General Range.—Western North America, breeding in Sonoran and Transition zones from northern Lower California and northern Mexico north to British Columbia and northern Alberta, and from the Pacific Coast (save for the northwestern coastal strip) east to western Montana, western Colorado, and west-central Texas; wintering in western Mexico south to Guerrero.

Distribution in California.—Common summer resident in Upper and Lower Sonoran zones practically throughout the State. Most abundant in San Diegan district. Not found in humid coastal section north of San Francisco Bay, nor upon the Santa Barbara Islands. Winters sparingly on the Colorado Desert (Grinnell).

Authorities.—Heermann (*Trochilus alexandri*), Jour. Acad. Nat. Sci. Phila., ser. 2, ii., 1853, p. 269 (Sacramento); *Gault*, Auk, vol. ii., 1885, p. 310 (San Bernardino Mts., breeding); *Grinnell*, Condor, vol. vi., 1904, p. 42 (Palm Springs, Dec.); Univ. Calif. Pub. Zool., vol. xii., 1914, p. 143, fig. (Colorado Valley; habits, nests); *Thayer and Bangs*, Auk, vol. xxiv., 1907, p. 312 (hybrid).

THE MECHANICS of flight is engaging the attention of man as never before in the world's history. By dint of much contriving, we have succeeded at last in compelling certain combinations of wood and canvas and aluminum to lift us into the air; and when we are so lifted we find ourselves quite at the mercy of our very fallible contraptions. The way of wings is not with us, nor indeed the understanding of them. Though the mathematics of aëronautics now fills volumes, the big, simple things, which are Nature's commonplaces, remain still unmastered. Go to the Hummer, thou aëronaut. Consider her ways and learn the trick, if you can.



Taken in the Ojai *Photo by Dickey*

A DARK DEED

THE FEEDING OPERATION LOOKS LIKE A MASSACRE

A baby hummingbird can fly perfectly from the cradle. He may, indeed, be seen vibrating his wings without leaving the nest, much as an aviator sets his propeller to spinning just to try his motor; but when the moment of flight comes, and the bird does cast off, there are no motor troubles nor is there any amateurish guess-work. The wings buzz until the bird is surrounded by a circle of shimmering light (irresistibly comparable to that of revolving propeller blades), and the bird rises—that is all. The rest is a matter of observation but not of imitation on our part.

A hummingbird flies in any direction it pleases. It is like a queen played at chess in three dimensions. She has all the privileges. Forward, backward, straight upward or sidewise, it is all one to those facile wings. The action of the wings is greatly assisted, no doubt, by the mobile tail; and it may be that the backward dash, by which the bird retreats from unexpected danger, is limited in range to the spasmodic thrust of that important organ. Anyhow, the tail jerks forward in a down-sweep, like the telson of a lobster, and the bird goes backward three or four feet, or, oftener, backward and upward. Those wings, also, are capable of the nicest calculation, in spite of their apparently

Taken in the Ojai *Photo by Dickey*

BLACK-CHINNED HUMMER AND YOUNG

automatic action. Be sure that such species as are wont to invade cactus plants, whether to nest or to rifle sweets, are not just taking chances with the thorns. If the foliage threatens to interfere with wing-action, that is instantly suppressed, and the bird crawls about like a bee, or uses its wings as a pair of crutches. Once, a hummer, finding itself entrapped in a porch by a wall of "chicken-wire" netting with meshes only an inch and a half in diameter, first passed slowly before the face of the screen, searching whether there might be any exception in his favor. Finding none, he made up his mind and darted through. So swiftly was the passage effected that the eye could detect no change in the position of the bird's wings. Only the ear noted an infinitesimal pause in their rhythm. Yet to accomplish this, the bird had been obliged to suspend the propeller motion of its wings, to furl them, to halve their normal spread, and to resume again upon the other side of the screen. No insect could have done this, and no other bird would have attempted it without "losing its head."

Vibrated, as they are, with a rapidity which no lens can

Taken near Santa Barbara

Photo by the Author

NEST AND EGGS OF BLACK-CHINNED HUMMER

arrest (at near range), it becomes of interest to note the wings of this tiny aircraft, and the pectoral muscles,—the engines which drive them. Compared with other birds' wings, those of the hummingbird are seen to be very much shortened basally—shorter leverage and added power. The breastbone, or sternum, serving for the attachment of the muscles which actuate the wings, is extraordinarily developed. It extends backward beyond the attachment of the legs, beyond the sacrum even, save as that is prolonged by processes which support the no less fully developed tail. The breastbone, moreover, is of an extraordinary depth, so that the skeletal hummer is like the body of a racing yacht, all keel. With such an equipment, a hummingbird can reel off a course a thousand times the length of its own body in a single second, and perform evolutions whose rapidity has no other near competitor in the realm of living nature. Or, let us say, to cap this climax, that the tip of a hummingbird's wing travels further through absolute space than any other wing in the world.

Taken in the Ojai *Photo by Dickey*

JE TOUCHE!

The Black-chinned Hummer indulges the tower-and-dive tactics in courtship, as do other hummers, but its performance is, perhaps, less spectacular. The loop of downward flight is less acute, and its altitudes are not so dizzy. The climax is marked by a low, musical, murmuring sound of considerable beauty, and there are spirited chipperings, besides, of so dainty a quality as to baffle the most careful student of distinctions. The Black-chin has, however, one fashion all his own, which makes him a prince among these fairy lovers. At what might be termed the sofa-and-low-gas stage of courtship, the male disports himself before his lady-love in a passionate effort which I call the rocking song. *She* is seated in the center of some bower, perhaps the tempered shade of a live oak tree. The lover sways violently before her through the arc of a small circle, like some feverish pendulum-bob; and as he sways he gives vent to his emotions in a dropping sound of passionate intensity.

Wooss, wooss, wooss, wooss, he says,—or possibly *wings*—with a frenzied half-circle for each beat. The sound is one of the commonest of the merry Maytime, albeit the lovers take some pains not to be caught spooning.

The Black-chin becomes known as the "Sponge Hummer" through its almost exclusive use of the tawny yellowish down of young sycamore leaves for nest material. This elastic substance is felted together and tempered with spiders' webs, and bound over all to the slenderest support of sycamore twig, willow, or what not. The resulting nest, both for simplicity of material and perfection of design, is quite the most exquisite in North American hummerdom. The upper margin of the Black-chin's nest toes in, so as to form a cup some two-thirds or three-fourths enclosed; and this tidy receptacle will stand a good deal of bandying by the wind without

Taken in the Ojai *Photo by Dickey*

SONNY

Taken in the Ojai *Photo by Dickey*

POLLYANNA

spilling its contents. So elastic is the structure that it will regain its shape after being lightly squeezed, and this quality comes in good part later, when the babies begin to "swell wisibly." In those last days the edges of the nest are first stretched to twice their former girth by the crowding chicks, and then trampled down so that the whole is a mere platform, a sort of vegetable pin-cushion, into which the bantlings fasten their needle-like claws.

Taken in the Ojai *Photo by Dickey*

BUDDIES

Two eggs are, of course, the rule, as with all hummers; but in Black-chin's special case three eggs have been several times recorded. These are white with a pinkish tinge in fresh eggs, changing to the dull white of blown specimens, or to sordid gray or discolored dusky in the case of those which are near the time of hatching.

All hummers are more or less dependent upon the presence of water at nesting time, but the Black-chin most of all. Hence, it comes about that one has only to search along the bottom of some foothill canyon in early May to find Black-chins' nests galore. Many of the birds will actually build out over the water, and at heights ranging from three to fifteen feet above it. Although jealous of each other's presence, they are willing to crowd in desirable territory; and it is not uncommon along certain favored streams to find a hummer's nest every fifty feet.

Most hummers' nests are seized by other birds and lugged off for nest-linings the moment they are vacated; but if they escape such notice, they are pretty sure to be utilized by the same pair of hummers the

following season. The Black-chin has strong local attachments and is very persistent. T. C. Wueste, of San Diego, tells[1] of one bird which, having been robbed consecutively three times in one season, built a fourth nest upon the selfsame twig and laid therein a fourth set of eggs, which she was allowed to possess in peace. Another bird,[2] having probably lost her nest when it was just ready for occupancy, dropped her eggs into the nest of a House Finch—defended her usurpation, too, in all probability, for nothing can stand before an irate hummer.

The comings and goings of the Black-chinned Hummer depend, more than in the case of any other California species, upon the season and the state of the flower crop. A wet winter, with abundance of food assured, is followed by a large influx of Black-chins; and in exceptional circumstances they fairly swarm. Tree tobacco (*Nicotiana glauca*), an introduced plant which is on the increase with us, is sure to abound with Black-chins; and, to mention only one of a dozen other favorites, so is the red larkspur (*Delphinium cardinale*). Those which have not followed the flowers up into the mountains with the advancing season will swarm about a century plant in August. A lady near Santa Barbara tells me that she has seen as many as sixty at once about a single plant. Of their occurrence in Los Angeles County, Joseph Grinnell says:[3] "This species arrives in Pasadena from the middle of April to the first week in May, and the majority disappear by the last of July. Extreme records at Pasadena are April 3 (1895), and September 3 (1895). By the first of July, when the vegetation of the foothills becomes dry and flowers cease to bloom, the hummingbirds are found in countless thousands at higher elevations (6000 to 8500 feet), where summer is just dawning."

No. 187

White-throated Swift

A. O. U. No. 425. **Aëronautes saxatalis** (Woodhouse).

Synonyms.—Rock Swift. Mountain Swift. Rocky Mountain Swift. White-throated Rock Swift.

Description.—*Adults:* Chin, throat, breast, middle line of belly, and a conspicuous patch on flanks, white—also outer edge of first primary and tips of secondaries;

[1] Condor, Vol. IV., March, 1902, p. 39.
[2] Frank Stephens in Life Histories of N. A. Birds: Bendire, Vol. I., p. 199.
[3] Pub. 2, Pasadena Acad. Sci., 1898, p. 27.

remaining plumage brownish black, paling on forehead, shading on sides of head; a whorl of stiffened feathers in front of eye black. Bill black; feet and claws (drying) pale brownish. Length about 152.4 (6.00); wing 145 (5.71); tail 57 (2.24); bill 6.2 (.24); tarsus 10.3 (.405).

Recognition Marks.—"Sparrow size," but larger to appearance; exceedingly rapid flight with flashing white underparts and flank-patches, distinctive.

Nesting.—*Nest:* A shallow, often formless saucer of feathers glued together with saliva and placed at bottom of inaccessible cranny or crevice on cliff. *Eggs:* 4 or 5 elongate ovate; pure white. Av. of 12 specimens in M. C. O. coll.: 21.46 x 12.95 (.845 x .51); index 60. *Season:* April–June, varying with locality; one brood.

General Range.—Western North America. Breeds from south-central British Columbia and Alberta south to Lower California and Guatemala, and from the Pacific slope east to southwestern South Dakota and western Nebraska; winters from southern California southward.

Distribution in California.—Resident in cliffs of Upper and Lower Sonoran life-zones in southern California, foraging to highest altitudes; also breeding locally in Sonoran and Transition zones throughout the State, except in the humid coastal district, from Santa Cruz northward. Resident on the Santa Barbara Islands.

Authorities.—**Heermann** (*Panyptila melanoleuca*), Rep. Pac. R. R. Surv., vol. x., 1859, p. 10 (San Fernando Pass and Palm Springs); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 185; *Bailey*, Condor, vol. ix., 1907, p. 169, figs. (Capistrano; nesting in old Mission); *Hanna*, Condor, vol. xix., 1917, p. 3., figs. (Colton; desc. habits, nests, eggs, hibernation).

SWIFTER than swift is the White-throated Swift. Indeed, swift, swifter, swiftest will best express the relations of our western *Cypseli*, where the positive degree is represented by the Vaux Swift, the comparative by the Black Cloud Swift, and the superlative by the White-throat. No one who is troubled with acrophobia, the fear of high places, should attempt to spy upon the nesting haunts of these Swifts, from above; for when to the ordinary terrors of a sheer cliff, say a thousand feet in height, is added the hurtling passage of resentful Swifts flashing about like hurled scimitars, the situation will try the strongest nerve. Viewed from below, in the open air, the evolutions of these birds may be regarded with some degree of equanimity; but when a Swift dips toward the ground, or measures its speed across the face of some frowning precipice, one sees what a really frightful velocity is attained. There is no exact way of measuring this, but an estimate of five miles per minute would be well within the mark, and six not unreasonable. The bird, that is, would require only an hour to flit from San Francisco to Santa Barbara; or, it might breakfast on Okanagan Lake in British Columbia, lunch in San Diego, and dine, a trifle late, with Goethals, in Panama.

In these days of rapid transit it is impossible not to allow the imagination to dwell for a moment on the implications of this bird's powers. Even at an average pace of four miles a minute, if the bird stays a-wing

one-third of the time (it probably does nearer half), it would do off some 2000 miles per diem. Eight years of life would give the bird some 5,000,000 miles of travel—ten round trips to the moon; two hundred times around the world—a trip every ten days if need be. Given the right psychological impulse, Swifts could undoubtedly accomplish such a journey, and they are probably the only birds that could. A night and an early breakfast at Hawaii, and another at Wake Island would bridge the Pacific; and as for enemies, no one who has ever seen a White-throated Swift box a Prairie Falcon about, will have any fears on that score.

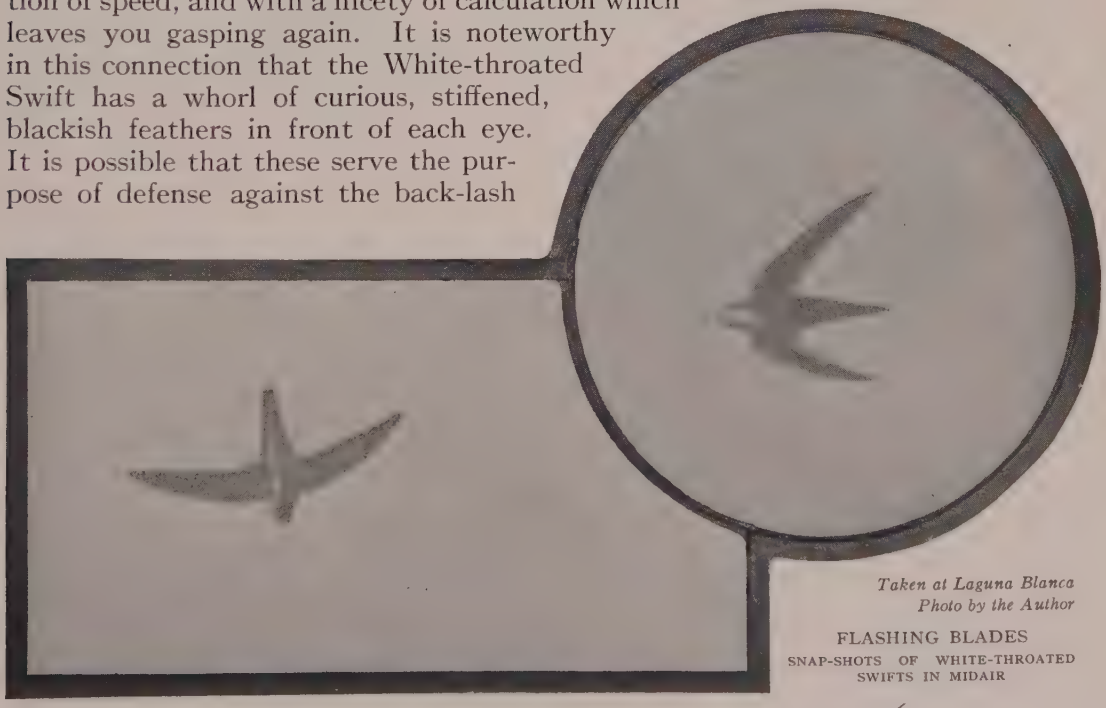
Our hero is no such bold rover, however. Although northern breeding birds have to fall back a thousand miles or so in winter, there is every reason to suppose that our southern birds are resident, or nearly so. They roost, therefore, the year around in the same crevices which harbor their nests, and one who knows their habits can summon them out of the rocks, if not out of the sky, to figure in a day's "horizon." The birds, nevertheless, exhibit great confidence in their rocky fastnesses, and it is by no means certain that they will all come forth when called for, especially if you are inconsiderate enough to knock at the sacred hour of siesta.

Behavior differs, of course, with the time of the year. Wintering birds from the north appear to rove about the country in considerable companies. For the most part their hunting is carried on in the upper air, where their lighter colors soon render them indistinguishable. Lakes or ponds of water will, however, lure them earthward at frequent intervals, since it is to such localities that they must look for an unfailing supply of insects when the upper currents are chill and barren. Laguna Blanca, near Santa Barbara, offers almost irresistible attractions on such occasions. When the birds come they come so suddenly, and they hawk for their prey with such fierce-winged zeal, with such intricacy of evolution, and are so soon gone again, that it would seem as if Mistress Blanca were some magician, who, having summoned from the sky a hundred scimitars, proceeds to juggle furiously with them. Then, tiring of the sport, she tosses the flashing blades back into heaven, and awaits our applause.

At other seasons the White-throated Swift appears to be much less sociable. Intent, it may be, on family affairs, it disregards the presence of its fellows, and meets only at the appointed rendezvous of the cliff side. At any real remove, therefore, one may expect to see a solitary bird plying his trade with characteristic energy. He is not devoid of curiosity, either, and several times I have cringed before the unexpected

sound of a Swift's wing cutting the air at close quarters. Two or three times he will dash past you, as though trying your nerves, and although he may not come closer than ten feet, the whistle of his wings is unpleasantly suggestive of an effort to "get the range." What a magnificent fellow he is, to be sure! A bent spring of steel,—the very embodiment of power!

But see him at the nesting cliff, and taste life's uttermost in speed. He is not a falling body, but a bolt launched from the blue. The descending stroke of his parabola is a thing to marvel at; but the vertical return, accomplished, it may be, within two feet of the cliff's face, really baffles the eye, and causes one to wonder how flesh and blood can stand such a strain. And while you are wondering, he repeats the device and cuts figures of eight with jutting rocks for foci, until you clutch dizzily at the ground for support. At such times you hear the characteristic notes which constitute a sort of war-cry rather than a song, consisting of a liquid, descending scale of musical, chuckling, or rubbing, tones. The noise produced is much as if two pebbles were being fiercely rubbed together in a rapidly filling jar of water. Anon the bird disappears as though the earth had swallowed him up, for the Swift has dashed into a crevice no larger than the thick of your hand without a sensible diminution of speed, and with a nicety of calculation which leaves you gasping again. It is noteworthy in this connection that the White-throated Swift has a whorl of curious, stiffened, blackish feathers in front of each eye. It is possible that these serve the purpose of defense against the back-lash

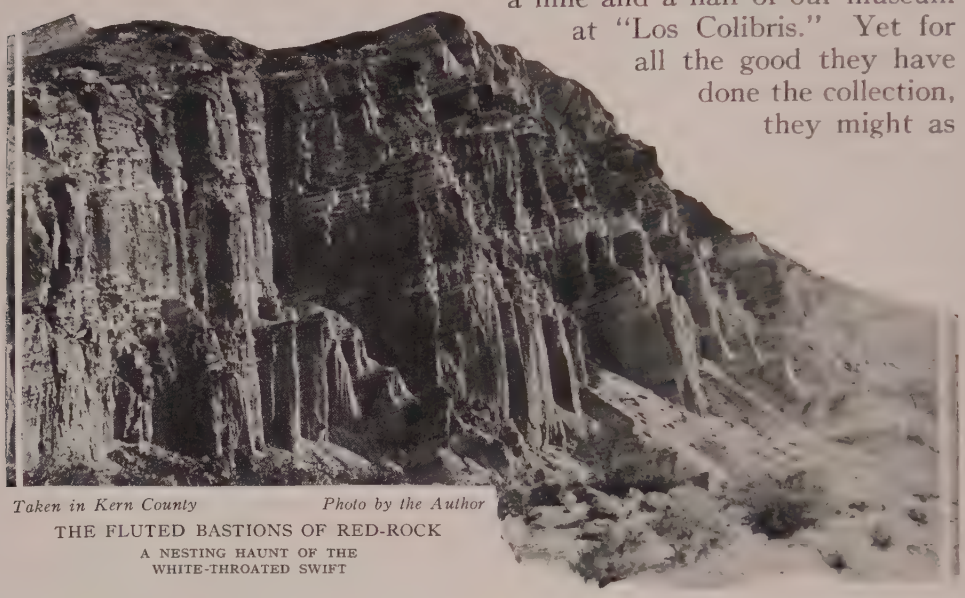


Taken at Laguna Blanca
Photo by the Author

FLASHING BLADES
SNAP-SHOTS OF WHITE-THROATED SWIFTS IN MIDAIR

of struggling insects, but I should rather suppose that they are in the nature of a wind-shield, ready-made goggles for this heavenly chauffeur.

In the selection of nesting sites these birds exhibit an almost preternatural cunning. Not only do they choose sheer walls or undercut niches, but those which, because of the fissures so afforded, are crumbling and dangerous to a degree. A small colony of these birds nests within a mile and a half of our museum at "Los Colibris." Yet for all the good they have done the collection, they might as



Taken in Kern County *Photo by the Author*

THE FLUTED BASTIONS OF RED-ROCK

A NESTING HAUNT OF THE WHITE-THROATED SWIFT

well be nesting in Tibet. As an index of the variety and difficulty which Swift-nesting affords, a detailed account of the quest of the season of 1913 may be worth while.

On the 3rd of May, son William (aet. 13) and the writer, loaded down with fathoms of rope, reconnoiter the sandstone cliff which juts out of the dense chaparral a mile or so up Mission Creek near Santa Barbara. The wall is more than a hundred feet high, and a great niche, overhung to a depth of twelve or fifteen feet, occupies the upper reaches. The lip of the cliff above this niche is deeply cleft, and here we see Swifts appearing and disappearing from time to time. The frontal aspect of this cliff is quite forbidding, and its flanks are guarded by chaparral, whose disciplinary values we have no mind to test. Fortunately, the face of the cliff is crossed by a narrow ledge. The devious course of this half hypothetical ladder is marked now and then by moss and ferns, a tiny live oak sapling, or a gnarled bunch of ceanothus. Every few yards a tiny sandstone cave offers repose, and the view of the wooded

canyon itself tempts the climber to pause at every solid foothold. The Swifts resent our intrusion in fashions we dare not consider, midway. So also do the Cliff Swallows, humble tenantry of all upended acres; and so, to our pleased surprise, do a half dozen of those gentle squires, the Violet-green Swallows.

Arriving at the crest, after a tortuous detour to get directly above our quarry, William shucked off his shoes and stockings, took a life-line about his waist, and a hand-line snubbed about an oak, and went over. He soon reported a Swift in the crevice and succeeded in dislodging her by dropping pebbles down. She took her revenge by cutting didoes about the cliff, and especially some fierce upper cuts which made a hardened offender like myself wince. The lad returned bravely to the charge, but found the crevice too deep, too narrow, too tortuous, and quite impossible of approach. Dynamite might have done it, but we were after eggs, not dreadnoughts.

Another crevice with an external aspect, nearly horizontal, was reached half an hour later. This was our best "prospect," for we had seen a bird enter it repeatedly; but William's arm could not negotiate the first passage, let alone the sharp turn upward which it presently took. Nesting in Tibet!

On the 15th of May we saw Swifts careening across a rock cliff in the Santa Susana country. Although they were not definitely traced to any one crevice, they made such frequent passes at a certain portion of the cliff, some twenty feet up, that one felt sure of a prospect. By dint of good fortune and the comforting recollection of our life insurance policies, we succeeded in clambering up to it with no greater penalties than come from the proximity of a colony of wild bees. But sure as fate, the suspected crevice was only large enough to admit the arm; and at a point about three feet in began to taper and turn. After vain groping with the arm, I rammed a pike up into the darkness and a Swift followed it out, double quick. Of course we renewed our efforts, but the quest was futile. Score three for the Swifts.

On the 22nd of May in the San Jacinto Mountains, William reported three locations made in a great dobe wall facing north. In each case birds had been seen entering narrow crevices behind sprung "scales" of indurated earth, such as mark the stage of erosion just previous to collapse. The wall was 180 feet in height, and our longest rope only 120, barely sufficient to reach the lowest prospect. But between this station and the next, twelve feet above it, there was a slight slope, and it was upon this margin that we pinned our faith. Briefly, we spent a day and a half under a broiling sun, with ax and pike digging a pathway along this ledge before we could connect up with the dangling rope, which we had

Taken in Orange County
Photo by the Author

RUINS OF MISSION SAN JUAN CAPISTRANO
WHITE-THROATED SWIFTS NEST HERE

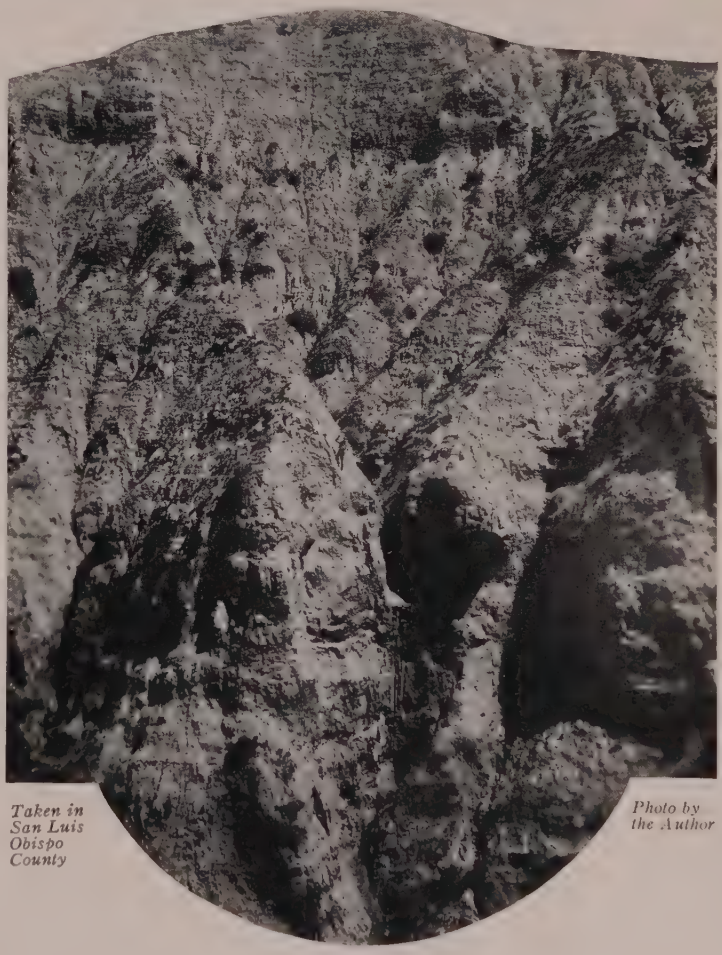
lashed to a manzanita stub at the crest of the wall. Further work disclosed in the respective crevices two nests—about *ready* for eggs. The birds had given us careful attention every half hour or so, and we were by no means prepared for this disconcerting outcome. Score four, and tally, for the birds. *Auf wiedersehen* for local prospect number three!

May 30, 1913. As the shadows of Decoration Day began to lengthen, we determined to do what we could toward the morrow's work, and set our ropes at least for the upper White-throated Swift's nest. The ropes set, one for life-line and one for hand-line, I went down to reconnoiter as matter of course,—and from that went to work in good earnest. William tended the ropes above in efficient fashion as I needed more line, or less, and I worked my way down with pike and ax till I had a fair platform carved out on the upper side of the great slab of sprung rock under which the Swift's nest was supposed to be. It was not long before I penetrated the crevice on the upper side and began to send devastating detritus down it; and not much longer till I found that I was in an exceedingly dangerous position, and that the upper two-thirds of the hanging wall must come down before I could work in safety. Indeed, when I thrust my pike midway, tentatively, there was an ominous rustle which sent me up my

lines like a cat. There was nothing for it but to hew off the whole mass, and a single pry of the pike sent off half a ton of earth, about ten feet of the scale. Next I sent off another scale below the first one, bearing no relation to it except that I had to have it out of the way in order to get at the lower third of the main works. This time a full ton of the earthy rock fell away, and it was no pleasant sensation to hear it thundering down while I clung to the lines.

Well; so much was done, and too well done, and no help for it. When I dug into the crevice again I found the nest all right, and it had eggs, or rather *had* had. They lay, whether four or five of them I could not tell, crushed to a jelly and sodden with the earth which pressed down upon the nest at every point. I took the sad remains out, placed them in my hat, and heaved aloft, a downcast and dispirited bird-man. It was nothing that I had seen another Swift enter a crevice lower down and further along the cliff. I had had enough of Swift nesting for one season!

May 31, 1913. Six o'clock! Sun's up! Hooray! Let's go after Swifts' nests! Agreed! That is, agreed while William slept. A Road-runner who was making me an early morning call ratified the arrangement by jerking his tail three times assuringly, then scuttled into cover. William agreed, too, when he woke up; but it was ten o'clock by the time we got to it. It



Taken in San Luis Obispo County

Photo by the Author

A DOBE NESTING CLIFF
"KELLY" TRUESDALE IN CENTER OF PICTURE

was easy. The lad had rigged up a step-ladder for examining some Cliff Swallow's nests on a previous trip, by nailing cleats on a sycamore sapling; and this we found exactly suited our purpose. The new prospect was only some 15 feet above the main talus slope, and above this, in turn, was a 5-foot solid slope in which we carved steps. In one of these steps we planted the one-legged ladder and William mounted to begin the attack. Fortunately we knew exactly where the Swifts had entered the uppermost opening of a vague crevice in a sprung but still quite substantial sandstone shoulder. Will had to remove a cubic foot or so of superimposed loose stuff and had only begun to hack at the face of the entrance itself when he glimpsed feathers. The bird dashed in at this juncture, ascended, and came back to a protected niche just over the visible entrance. Will poked in cotton, carefully, and his handkerchief after, and then worked away at the low-vaulted ceiling. He reported each step of progress breathlessly to a very expectant dad below, and was soon able to announce eggs—then the bird, hiding further back in the crevice.

I claimed a peep and uncovered the eggs, four of them, but gave the boy the well-earned privilege of actually bringing them down. He found that although the nest rested on the floor of the cavity, it was more or less cemented also, especially on one side, and required to be cut away carefully.

The male bird, meanwhile, was taking vigorous exercise by hurling himself at me from various angles in space, but he always brought the focus of his attention, much to my relief, some three feet away from my face. The female remained in the crevice till the last, and we left her in charge while the eggs were brought down in safety. "White-throated Swift n/4"—a proud trophy, the result of the seventh attempt this season.

These eggs, which seem to be typical enough, are of an elongate ovate shape, and of crystalline whiteness. In appearance they resemble those of the eastern Chimney Swift, although they are slightly longer. The nest is a shallow saucer four inches long and three and a half wide, composed of grasses and weed-stems, used sparingly, together with cotton from the black cottonwood, and copious feathers. These substances are gummed together basally, presumably by saliva. The surface is soft and fluffy; while a couple of quill feathers, picked up in some barnyard, are stuck in rakishly on one side. This domicile, otherwise charming, was alive with "varmints," chief among which we noted bedbugs, presumably *Cimex hirundinis*, such as infest the homes of the Cliff Swallows hard-by. The eggs were all lightly specked with blood which had exuded from the parental abdomen as a result of the bites of these creatures.

Egg deposition in the case of the White-throated Swift is not daily, as is customary with small birds, but only every second or third day, as determined by Mr. Wilson C. Hanna, of Colton.

The White-throated Swift enjoys a great range in the nesting season, breeding from virtual sea-level up to nearly timberline. Their occupation of the gorges in the western Sierras is not less characteristic than that of the dobe cliffs of the coast ranges. In the latter instance they are humanly attainable, but those which elect to nest in the glacier-scored walls of Tehipite or the Yosemite are secure from mortal wish.

The evolutions of these master aëronauts are an engaging feature of life at Glacier Point. The birds delight, I believe, in "throwing scares" into tourists, and if one does happen to be squeamish about gazing into a 3000 foot abyss, it doesn't help matters any to have a saucy bird demonstrate the strength of his nerves by dashing within a foot of one's ears at a rate of five miles per minute, that is, 440 feet per second. A strong upcurrent of air at this place takes up bits of paper from discarded lunch boxes and whirls them in the air at dizzying heights above the valley. Noting that the Swifts paused occasionally to inspect these bits of paper, I conceived the idea of feeding them smaller bits of tissue. There was instant attention on the part of the Swifts, and I soon had them seizing the paper before it had floated a dozen feet away. Many of the pieces were borne off in triumph out of sight, but I was not able to trace any of the birds to their nests by means of it. Indeed, I am not sure that the bits were not all eventually dis-

Taken in San Bernardino County *Photo by Pierce*

NEST AND EGGS OF WHITE-THROATED SWIFT
NOT IN SITU

carded, either because the pioneers reported them unsuitable for nest-lining, or because there was no need of lining nests further. While the fun was on, there was considerable rivalry among the birds as to which should get the dainty first, and in one instance a "hand to hand" tussle ensued, during which the birds tumbled over and over and lost a hundred feet of altitude.

That most friendly of encounters, the nuptial embrace, appears to take place, also, in the air. In this the birds come together from opposite directions, engage with the axes of their bodies held at a decided angle laterally, and begin to tumble slowly downward, turning over and over the while for several seconds, or until earth impends, whereupon they separate without further ado.

Romantic as are the mountainous associations of our hardy Rock Swift, it is in order to note certain exceptions. Thus, Mrs. Bailey[1] reports the nesting of White-throated Swifts in the ruined arches of the Mission San Juan Capistrano, near San Diego. No less than five pairs of these birds enlivened this pale sanctuary in a single season, sharing its hospitality, as they did, with the Cliff Swallows, Barn Owls, Wrens, Phoebes, and other drabs. Many triumphs has the Church had over the savage breast; I wonder if she knows the full significance of this one.

Still more striking is the exception noted by Mr. H. Arden Edwards[2] —that a pair of these Swifts attempted to nest in a weathered fissure of a giant fir stub in the Big Tujunga Range. Perhaps, after all, we attribute too much of cunning to our hero in the selection of a nesting site. In sober prose, availability is doubtless the chief test.

The heights of heaven are being stormed by man. The virgin precincts of the upper air are desecrated now by monsters of aluminum and steel, while the soft zephyrs reek with the stench of gasoline. Fast and faster grows the pace. Near and nearer the skill of flying men approximates to that of the birds. It is with a feeling akin to sadness that the lover of Nature sees her last sanctuary ravished by the ruthless enterprise of his own kind. But there are those whose laurels will never be snatched away by the hand—or wing—of man; and chief among these towers the White-throated Swift. Her perpetual challenge is flung to the teeth of the air-men. She will outfly the fairest of them all through all the centuries; and as often as some hapless Lucifer of the vaunting crew starts upon his last journey earthward, she will weave about his tumbling body a mocking shroud of flight.

[1] Condor, Vol. IX., Nov., 1907, p. 169.
[2] Condor, Vol. XVI., Sept., 1914, p. 207.

No. 188

Northern Black Swift

A. O. U. No. 422. **Nephœcetes niger borealis** (Kennerly).

Synonyms.—Cloud Swift. Northern Black Cloud Swift.

Description.—*Adult male:* Plumage sooty black, changing to dull glossy blue-black on exposed quills and on tail, paling to sooty brown on head and breast; forehead, especially on sides, lightly tipped with pale grayish brown; a velvety patch of black feathers in front of eye; feathers defining edge of wing faintly edged with grayish brown; tail notched for eight or nine millimeters. Bill and claws black; feet and legs paler. *Adult female:* Like male, but feathers of belly and crissum more or less edged with white; marginal row of feathers on wing-lining narrowly edged with white or pale grayish; tail scarcely emarginate. Length about 165.1 (6.50); wing 165 (6.496); tail 61 (2.40); bill 6.8 (.27); tarsus 12.9 (.51). Female has tail a trifle shorter.

Recognition Marks.—Sparrow size, but appearing larger; long wings and rapid flight with solid black color and size distinctive.

Nesting.—*Nest:* None, or, rarely, a simple coil of grasses. *Egg:* Single; pure white; placed on floor of shelf or cranny of sea-cliff or mountain precipice. Av. of 9 eggs: 28.8 x 19 (1.13 x .75); index 66. *Season:* June 20–July 10; one brood.

Range of *Nephœcetes niger.*—Western North America, the West Indies, and northern South America.

Range of *N. n. borealis.*—Western North America. Breeds in the mountains and on the sea-cliffs from southern Alaska south to central Mexico, and from the extreme Pacific Coast east to Colorado. Winters south to Guatemala and Honduras.

Distribution in California.—Of general distribution throughout the State, but rarely observed. Known as a summer resident and breeder only from the Monterey and Santa Cruz coasts. Undoubtedly breeds elsewhere in the higher mountains (Lone Pine, June 16, 1911; San Jacinto Mountains, June 7, 1913; Kearsarge Pass, July 4, 1913; Yosemite, near Nevada Falls, June 16, 1914; Bishop, May 29, 1919; Mammoth Lakes, June 20, 1921).

Authorities.—**Baird, Brewer and Ridgway** (*Nephoecetes niger*), Hist. N. Am. Birds, vol. iii., 1874, p. 521 (San Francisco); *Lucas*, Auk, vol. x., 1893, p. 365 (osteology); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 175; *Vrooman*, Auk, vol. xviii., 1901, p. 394; *ibid.*, Condor, vol. vii., 1905, p. 176 (Santa Cruz; desc. nest and eggs); *Dawson*, Condor, vol. xvii., 1915, p. 8, figs. (Santa Cruz, breeding habits).

IT MAY be confessed that the palmy days of bird-nesting *as a sport* are over. Those who still have at heart the interest of oölogy as a science are not loth to make this admission. Sport in the older sense of the term has ever meant destruction, while science stands or should stand for conservation. A kindlier spirit toward the things of nature is manifesting itself on every hand—a determination to foster and to protect, instead of to destroy. The life of a bird is undoubtedly more important to humanity than its caloric content, and the psychology of a living bird is more fascinating than either its plumage or its egg.

The substance of this article has already appeared in "The Condor," to which grateful acknowledgment is made.

BLACK CLOUD SWIFTS

That the turn of the tide came when the task of Science, in this country at least, was nearly ended, is no doubt more than a coincidence. The game has flagged because there are so few new fields to conquer. The quest of the unknown in American birds' eggs is nearly over; for with the exception of certain forms casual or rare along our southern border, and one of the Rosy Finches, there are no more full-fledged species of American birds, believed to breed within the limits of the United States, whose nests and eggs have not been discovered.

What this means for science and for romance the layman may never fully understand. But it means at least that the quest has been very keen of late, and that a bona fide discovery of some long-sought species has marked the discoverer a prince among oölogists. When, therefore, an unknown collector, A. G. Vrooman, of Santa Cruz, announced in 1901, through the columns of "The Auk," that he had found the egg of the Black Cloud Swift (*Nephœcetes niger borealis*), the oölogical world came to instant attention. But when we read further that the bird laid only *one* egg, and that on the bare, damp earth of a sea-cliff, interest turned to amazement, and incredulity to open scorn. Anything

but the Black Swift! For everybody knows by now that the Black Swift is a bird of the high mountains. This fellow in Santa Cruz has stumbled on some petrel's egg, deposited, perhaps, in haste, on an exposed shelf instead of its habitual burrow.

The Black Swift had for decades teased the oölogical imagination. The bird itself was none of the commonest; but when we did see it, we saw it in roving companies numbering scores or even hundreds. Every movement of these great, black, silent "sky-scrapers" bespoke mystery, no less than ease and power. A lucky day had found them gyrating about the solemn bastions of some basaltic range in eastern Oregon or Washington. Another had seen them madly crossing and recrossing the face of a giant bulwark of the high Sierras, or else hurtling like scimitars through the defiles of a frozen mountain pass. Again, it pleased their whim to descend upon the plains, a thousand strong, and there they hawked at insects, like swallows, albeit with a dash skill unknown to the swallows. At a time, again, they would deploy over the surface of one of the larger lakes, Chelan, Tahoe, or Washington;

Taken in Santa Cruz County *Photo by the Author*

A BIT OF THE SANTA CRUZ COAST

THE ONLY ESTABLISHED NESTING HAUNT OF THE BLACK SWIFT

Taken in Fresno County *Photo by the Author*

"A GIANT BULWARK OF THE HIGH SIERRAS"

TEHIPITE DOME, UNDOUBTEDLY A LANDMARK FOR THE CLOUD SWIFTS

and the boatman caught the gleam of a beady eye, or else cringed in involuntary terror, as the bird swept over him with the impersonal disregard of a thunderbolt. Sultry days, we used to fancy, drove them low, but even as we gazed and speculated, seeking what manner of meat they fed on, they were gone again, vanished in a trice behind the clouds. There seemed to be no law about their comings and goings, even in the summer season, when all proper fowls are found in the vicinity of their nests. These birds could not nest on lakes or plains. Indeed, I still believe that Black Swifts hunt in flocks at all seasons, and that they enjoy a daily range of hundreds of miles in quest of food.

Our meager knowledge of the nesting of the Black Cloud Swift has been painfully acquired. In the year 1888 an ardent amateur, whose name it would be a pity to perpetuate in this connection, but a member of a once flourishing organization known as the "Young Naturalists," found a bulky nest containing five white eggs in a warehouse on the Seattle water-front, and reported it with due pomp and circumstantiality

as the nest of the long-sought Black Swift. Appearing, as it did, in the venerated columns of "The Auk," this account met with ready acceptance, and was copied far and wide,—so widely, in fact, that the tradition still persists in heavy monographs and foreign tomes.

Of course, those whose natures are tinged with a wholesome skepticism soon made out that the nest in question belonged, not to the dashing tyrant of the skies, but to the more prosaic Purple Martin (*Progne subis*), a bird at that time little known in the West. Major Bendire correctly diagnosed the case upon a visit to Seattle in May, 1894, and published his opinion in the authoritative "Life Histories," which appeared in 1895 under government auspices. This veteran nest-finder, the ranking officer of the whole oölogical corps, had come the nearest of any one to finding the nest of our elusive black heroes. The gist of his account is worth quoting: "The only locality where I have obtained this species was on the upper Columbia River, opposite Lake Chelan, Washington, in July 1879. Here quite a colony nested in a high perpendicular cliff on the south side of and about a mile back from the river, and numbers of them flew to and from the valley below where they were feeding. The day was a cloudy one and the slow-drizzling rain was falling the entire time I was there; this caused the birds to fly low, and they were easily identified. They evidently had young, and the twitterings of the latter could readily be heard as soon as a bird entered one of the numerous crevices in the cliff above. This was utterly inaccessible, being fully 300 feet high and almost perpendicular; and without suitable ropes to lower one from above, it was both useless and impractical to make an attempt to reach the nests. These were evidently placed well back in the fissures, as nothing bearing a resemblance to one was visible from either above or below."

The writer had word of the nesting of these birds in the summer of 1906 upon a majestic rock-wall overlooking the Sahale Glacier in the Upper Horse-shoe Basin in the Chelan country, but a visit paid to this scene the following season failed to discover either nests or birds, although local miners were ready to confirm the report of their presence in numbers the previous season. Dr. Edward Hasell, a reputable bird-student of Victoria, B. C., reported their nesting about a certain cliff overlooking Cowichan Lake on Vancouver Island. The cliff referred to is about 1600 feet high (1500 feet is the Doctor's limit, so the birds were not disturbed). Ridgway saw them in 1868 about a cliff on the Carson River in Nevada. And so it has gone for decades,—glimpses, rumors, tantalizing prospects, near successes, but never a view of the coveted eggs.

Other North American Swifts, of which there are three species, lay from four to six moderate-sized white eggs. The Chimney Swift

Taken in Santa Cruz County *Photo by the Author*

THE BLACK SWIFT NESTERS
A. G. VROOMAN, THE DISCOVERER, TO RIGHT

of the East, miscalled "Swallow," lays its treasures on a shallow bracket of twigs glued together by saliva, and placed against the wall inside a disused chimney. The Vaux Swift of the West makes a similar bracket of twigs, but retains for the most part the primitive custom of nesting inside some fire-hollowed tree or decayed stub. The White-throated Swift, which nests in crevices of cliffs, prepares an elaborate cushion of feathers and other soft substances, which it cements with saliva. It was fair, then, to suppose that the Black Swift, since it nested in cliffs, followed somewhat the same fashion as does its mountain-dwelling associate. But we did not know.

Comes now Vrooman of Santa Cruz, naturalist, aged forty, and sixteen years steeped in the lore of local collecting haunts. On June 16th, 1901, he is making his annual rounds of those beetling limestone cliffs, which with their indentations front the sea for thirty miles to west and north of the famed resort on Monterey Bay. The country is a rather desolate one, for the unceasing winds have driven even the reluctant redwoods to take shelter in such cañons as occasionally intersect the

narrow, sharp-edged table-land. No one but the lookout of a life-saving crew, or a bird-nester, would care to follow this perilous cliff-edge, with only the wind and the snarling surf for company. Shags' eggs are the special quest of the naturalist on this occasion, hence he is equipped with rope-ladder, maul, and pin, as well as with landing-net and tin collecting box. He has just taken two or three sets of Cormorants' eggs from the face of a cliff a hundred feet in height, when, as he leans over to land another one, a Black Swift flushes from under his net-pole not four feet away, dives down toward the ocean, and whisks out of sight around the cliff. It all happens in a trice. He thinks he cannot be mistaken, for

Taken in Santa Cruz County *Photo by the Author*

EGG OF BLACK SWIFT, IN SITU

he has often seen the birds in midair. He has even seen them flash across the face of a cliff in frantic pursuit of some insect too small or too quickly gone for human ken. This must be a Black Swift. The bird is gone, but there, as mute evidence of occupation, lying on an earthen cornice wet with seepage, and partially screened by growing grasses, is an enormous white egg. Fearful of exciting the bird's jealousy and so causing desertion, Mr. Vrooman leaves the egg untouched and hastens up the ladder. The bird does not return. Nor yet is it to be seen when the birdman returns a week later, hoping to retrieve a full set. He finds only one cold egg instead. He also found incubation somewhat advanced and concluded, therefore, that this single egg might be all that the bird was wont to lay. But the case was manifestly not well proven, and it

is not strange that birdmen in general failed to share the discoverer's enthusiasm over the find.

From this time forth Vrooman resolved to find another egg and "show 'em." Each year at the appointed season, therefore, he beat up and down that bristling, wind-swept coast. The birds were close sitters and well hidden, he knew that, so he examined the rock walls, peered into booming caverns, or searched laboriously across the faces of storm-scarred stretches. At the end of a dangling rope ladder he fought with the spray for a glimpse of coveted recesses. Depths that he could not follow with the eye were sounded with a "devil's rattle-box" of his special contriving. All in vain. Mile after mile of likely-looking cover was laboriously scrutinized, but nothing came of it, not so much as the flash of a vanishing wing. It seemed to the lonesome seeker that he must have been dreaming that strange day on the Cormorant cliff. Perhaps the scoffers were right, after all, and he had only stumbled on the egg of an erring Petrel overtaken on shore. But the Swifts were in the country, that he knew. Not many, to be sure, two or three or half a dozen at a time, at most. Often he saw them at nightfall playing mad games of tag, with only the horizon for bounds. Now a sable lover made soft proposal to a dusky mate, the while they scudded across the heavens like twin meteors. She for answer appointed a tryst in the shadow of Tehipite's dome, or over a glacier on Shasta's flanks. They might as well have gone to the dark side of the moon for aught the watcher learned. The bird had, apparently, no local attachments.

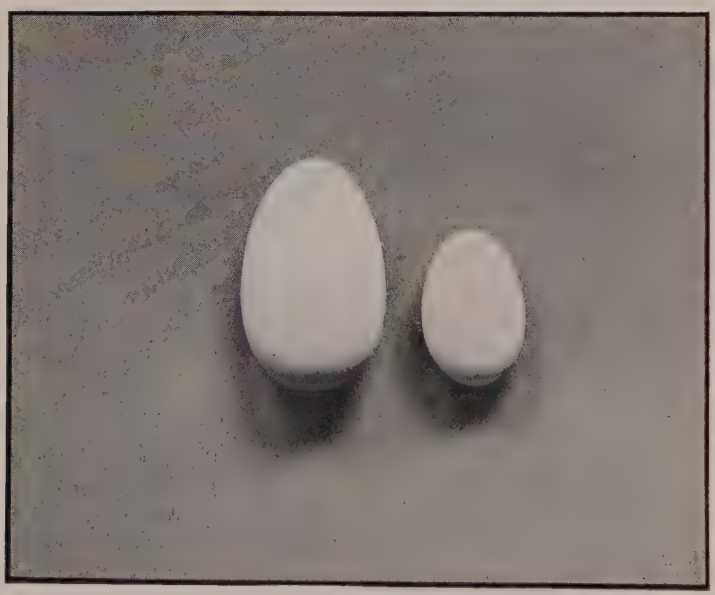


Photo by the Author

A COMPARISON

EGG OF BLACK SWIFT TO LEFT; OF WHITE-THROATED SWIFT TO RIGHT—YET THE BIRDS ARE ABOUT THE SAME SIZE

But on a day, the 9th of July, 1905, it was, the long search was rewarded. The wonder-bird was run to earth again. On a dank cliff and a natural bracket of mud, which fairly mimicked the first nesting

site, Mr. Vrooman found a dull white egg, which the Black Swift consented to own by repeated visits. Then to quiet the last doubt which Science otherwise would never have ceased to voice, the collector secured the parent birds and added their skins to the shipment, "Exhibit B," which went to the foremost connoisseur in the land, Col. John E. Thayer, of Boston.

Taken in the Yosemite *Photo by the Author*

NEVADA FALLS

A CONJECTURAL NESTING SITE OF THE BLACK SWIFT

While it might have been called an accident which first betrayed the secret of the Black Swift, it was the sort of accident which befalls only the knowing, and the alert Vrooman was not slow to profit by the lesson of the second find. Putting the two situations together and noting the coinciding features, the naturalist determined on a revised campaign. Disconnected facts began to come into relationship, and partially forgotten details took on significance. Slowly but surely the investigator came to an understanding of Swift psychology which enables him to locate an egg or two of these shifting, wary creatures almost every season. Hence, to the credit of the first discovery, so richly deserved, has been added the record of unchallenged honors for twenty-two years. It would, of course, be presumptuous to say that no one else could find a Black Swift's egg; but the eloquent fact remains that no one has.

In the season of 1914 it was the privilege of the writer to accompany

Mr. Vrooman when the annual take was made. After a long motor drive up the coast in the teeth of a fresh gale, we turned in at a point where the cliffs were only 65 or 70 feet high. Here the surf, crashing against the abrupt sea-wall, kept the vegetation moist; and here, at a point some thirty feet over the crest of the cliff, the location was made. The Swift, when apprised of our presence by the rattling of Vrooman's "devil box," darted downward toward the water, and passing with strong wing-stroke close to the surface of the water, stood straight to sea until lost from sight. A Black Swift I knew it to be at first glance, but this was amazing behavior for a land bird. A Kaeding Petrel or a Cassin Auklet, haled from its burrow and tossed into the air, would have acted just so; but why should this gleaner of heavenly gnats, this inspector of glacier-carpeted fastnesses and habitant of clouds, seek the sympathy or the seclusion of the open sea? *Quien sabe?* Although we knew about where the bird had got up, we did not know the precise spot quitted. The minute search, therefore, required several resettings of the stout steel stake which supported the swinging ladder, and it was nearly an hour before Vrooman appeared aloft bearing that studied, matter-of-fact expression which is the precursor of important news. He had found the egg on a mud cornice some 30 feet down, half hidden in the growing grasses. He had barely returned, however, when a shout from another member of our party, posted on a commanding cliff-edge hard by, apprised us of the return of the bird. She had swept in once, feinted and retreated, but she threatened to return again. Hastily drawing up the ladder, we flung ourselves face down upon a neighboring point, and had the satisfaction of seeing her sweep grandly upward to her nesting ledge. The grass concealed her from inquisitive gaze, even of binoculars, but there she undoubtedly was, brooding on her solitary, titled egg.

It was too good to be true. This mistress of the clouds, this storied, quested, eccentric sky-wanderer, sitting there with wings meekly folded, behind a tussock of grass! We felt like the farmer at the circus, who, having gazed long at the giraffe, declared, "By gum, there ain't no such creature."

When she flushed again, after another reminder from Vrooman's rattle-box, we had the camera set for her. But she was quite too nimble for us, even with a shutter set at 1/1000 of a second. And so she passed to sea again, flying straight beyond the range of 8-power glasses, and leaving us in undisputed possession of the pearly trophy.

This, the rarest of American birds' eggs, is remarkable not alone for its singular number, but for its large size, greater than that of any other American Swift. Thus, in comparison with the egg of the White-throated Swift, figured herewith, it is seen to be about three times larger,

while the birds themselves differ in length by less than two per cent. What the determining cause of this extraordinary difference in size may be, we cannot yet see; but it is fair to conclude that the infant *niger* must be much further developed at birth than are his baby cousins. As the exclusive recipient, also, of parental favors, it is safe to predict that his growth is rapid, and his hazardous sojourn in his surge-crooned cradle a brief one. These are children of the upper air, and their scorn of the ground may have become embodied thus in an effective device for being quickly quit of it.

Since writing the above I am informed by Mr. DeWitt Miller, then in the service of the American Museum, that he has found nests of a related species, the Brown Swift (*Cypseloides brunneitorques brunneitorques*), in the mountains of Peru; and that this bird lays only one large egg. The South American Brown Swift, however, makes a shapely nest of moss, which it attaches to the side of a cliff. The Black Swift seems to be unique in its deposition of its egg upon the bare, moist earth. There are, however, distinct indications that this careless habit is a recent devolution. Vrooman has found several eggs whose support was a well-coiled cushion of grasses, and one of these at least whose formal proportions deserve the title of nest.

The sea-faring instinct displayed by these birds is hard to understand, but that it is a deep-seated one the following account will show. In the summer of 1920, when Mr. Vrooman was out after his annual toll, he came upon a youngster in the pin-feather stage, unseasonably early, albeit with well developed flight-feathers. Juvenal specimens are rare and very desirable, so the collector, who was dodging the waves on the beach below, essayed to dislodge the chick with a pole, intending to snatch him and run before a wave caught him. The nestling tumbled, but when within two feet of the ground recovered itself, rose to a height of six feet, and set out bravely to sea. In helpless astonishment the veteran collector watched this waif as it fluttered and wobbled or circled, but ever seaward, until it passed from sight. Never a thought, apparently, for the parent cliff or of *terra firma*, but only for that ancient beckoning siren whose bosom could have meant nothing but a grave. It was too uncanny!

For myself I have followed this will-o-the-wisp for thirty years—not on Vrooman's preserves, of course, that would be ungentlemanly—but never a sight have I had of the alabaster oval beyond the glimpse afforded me by Vrooman's skill that day in June. But someone, somewhere, will make a strike. The birds undoubtedly do nest in the mountains; and they must occur elsewhere along the sea coast. As a sporting proposition I place my accumulated "dope" at the service of the public—

and may the best man win. Stories attributed to Mr. Herron, of San Bernardino, tell of Black Swifts seen passing behind a certain waterfall on Mill Creek east of Redlands; and of a cave near the Warner Ranch where they are supposed to breed. I have myself seen these swifts "under suspicious circumstances" haunting Nevada Falls in the Yosemite. This well known cataract is only 700 feet in height, but I renounce title to all the Black Swifts' eggs which may have accumulated behind it. Swifts have been seen, in season, in the Kearsarge Pass, above Independence; and a single bird in Mammoth Pass. Besides this—now this is an honest-to-goodness tip—I have seen Black Swifts in numbers playing about the cliffs of the Point-of-the-Arches group, on the west coast of Washington. They undoubtedly breed there.

No. 189

Vaux's Swift

A. O. U. No. 424. **Chætura vauxi** (Townsend).

Description.—*Adults:* Above sooty brown, lightening (nearly hair-brown) on rump and upper tail-coverts; below light sooty gray, lightening (nearly white) on chin and throat; lores velvety black; shafts of tail-feathers denuded at tips a third of an inch. Length about 114.3 (4.50); wing 112 (4.41); tail 36.5 (1.44); bill 5.2 (.20); tarsus 10.9 (.43).

Recognition Marks.—Strictly "pygmy size," but comparison misleading—to appearance swallow size; rapid, erratic flight, and bow-and-arrow-shaped position in flight, distinctive. Although this species is only half the size of the preceding, careful discrimination is necessary while the birds are a-wing.

Nesting.—*Nest:* A small bracket of fine dead twigs or fir needles, held together by hardened saliva, and placed against inside wall of hollow redwood tree, near bottom, or else in hollow under a stump. *Eggs:* 4 to 6; elliptical ovate; white. Av. of 26 specimens from Humboldt County in M. C. O. coll.: 18.3 x 11.8 (.72 x .465); index 64.6. *Season:* June; one brood.

General Range.—Breeding in the Pacific Coast district from Santa Cruz, California, to southern Alaska; casually (?) eastward through the Cascade Mountains and into the Sierras; east in migrations to Montana, western Nevada, and Arizona; south in winter to Lower California, Mexico, and Central America.

Distribution in California.—Common migrant practically throughout the State. Resident in summer in the Redwood forests of the humid coastal belt, from Santa Cruz northward. May breed sparingly in the Sierras (Kenawyers, South Fork of Kings River, July 9, 1913).

Migrations.—*Spring:* Apr. 16–May 23. San Diego, Apr. 16, 1885; Cazadero Redwoods, Apr. 21, 1911; Shandon, Apr. 19, 1912; Los Olivos to Santa Barbara, Apr. 26, 1912, "the dominant bird"; Potholes, Apr. 29, 1910; Fresno, May 20, 1903; Olancha, May 23, 1891; Vallevista, Apr. 29, 1908. *Fall:* Aug. 4–Oct. 14 (both Los Angeles, 1899, by H. S. Swarth); Santa Barbara, Sept. 4, 1911; Oct. 5, 1912; Sept. 11–18, 1915.

Taken in Humboldt County *Photo by the Author*

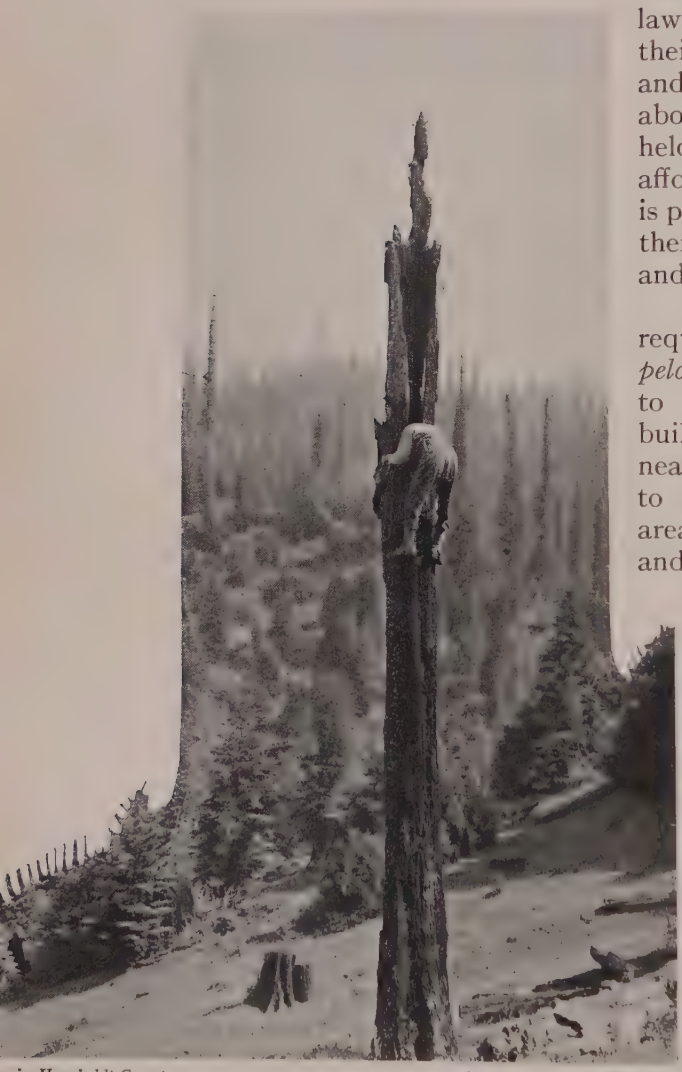
A STUMPSCAPE

THESE RUINS OF A REDWOOD FOREST OFFER ATTRACTIVE NESTING SITES TO VAUX SWIFTS

Authorities.—Woodhouse (*Acanthylis pelasgia*), Rep. Sitgreaves Expl. Zuni and Col. R., 1853, p. 63, part (Calif.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 183, pl. 1, fig. 26 (egg); *J. Mailliard*, Bull. Cooper Orn. Club, i., 1899, p. 44 (Santa Cruz Id., migr.); *Taylor*, Condor, vol. vii., 1905, p. 177, fig. (Humboldt Co.; desc. nest and eggs); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 59 (s. Calif.; migr. dates).

SO MUCH has been said above in praise of the larger Swifts of the West, that little remains for this humbler sky-scooter, the smallest of the American group. Truth to tell, we are not able to give a very clear account of three quarters of a century's "scientific" acquaintance, having earlier established a lazy habit of describing it in terms of its eastern cousin, the Chimney Swift (*Chætura pelagica*), which it does very closely resemble. This quotation at least from "The Birds of Ohio" will exactly apply: "The way of any bird in the air commands interest, but the way of the Swift provokes both admiration and astonishment. With volitatorial powers which are unequalled by any other land bird, this

avian missile goes hurtling across the sky without injury, or else minces along slowly with pretended difficulty. Now it waddles to and fro in strange zigzags, picking up a gnat at every angle, and again it 'lights out' with sudden access of energy and alternate wing strokes, intent on hawking in heaven's upper story. At favorite seasons the birds cross and recross each other's paths in lawless mazes and fill the air with their strident creakings, while here and there couples and even trios sail about in great stiff curves with wings held aloft. It is the only opportunity afforded for personal attentions, and it is probable that the sexes have no further acquaintance except as they pass and repass in ministering to the young."



n in Humboldt County *Snapped by A. G. Vrooman*

THE VIEWER AND THE VIEWED

'S MESILF; AND I COULD *not* SEE THE NEST, BECAUSE IT PROVED TO BE WITHIN TWENTY INCHES OF THE GROUND

In nesting only, the Vaux Swift requires some distinction from modern *pelagica*, in that it clings pretty rigidly to the common ancestral habit of building in hollow trees. It is thus nearly confined in the breeding season to the vicinity of heavily forested areas, so that its study is difficult, and its appearances deceptively rare.

In preparing for the nest, short twigs are seized and snapped off by the bird's beak, in mid-flight, and these, after being rolled about in the copious saliva, are made fast to the inner wall of the hollow tree, a neat and homogeneous bracket being thus formed. The bracket is so narrow, however, that the eggs, even up to the number of half a dozen, are likely to be ranged in a single row, and these the sitting bird broods lengthwise. The first California nest, reported from the vicinity of Santa Cruz in 1874, was placed in the hollow of a dead

Taken in Humboldt County *Photo by the Author*

THE LADDER OF ILLUSION

IT LED THE AUTHOR UP AN 80-FOOT STUB AND HALF AS FAR DOWN INSIDE, BUT IT YIELDED ONLY AN "EMPTY"

sycamore. In Humboldt County, where these birds are probably more nearly common than anywhere else in the State, Redwood stubs are used. A nest found by Mr. Franklin J. Smith, in the summer of 1905, was composed entirely of pine needles instead of twigs. In this case, also, the bird had descended to such a depth, in a thirty foot stub, that the nest was only two feet above the ground.

Almost invariably the birds nest within twenty inches or such a matter of the bottom of the cavity, no matter how elevated the orifice. And, since the forces of disintegration are at their feeblest when furthest removed from air, the soft punk wood at the bottom of these shafts avails to preserve the not infrequently dropped eggs.

The Vaux Swift also nests, according to Mr. C. Irvin Clay, of Eureka, in the stumps of logged-off redwood lands. The birds enter by weather fissures, and since the stumps are almost always undermined by fire, it sometimes happens that the nest is found beneath the level of the ground. Another investigator, Mr. John M. Davis, finds that if the birds are robbed early in the season they will repeat in the same tree, or in one closely neighboring. Mr. Davis has a few pets, "old hens," who remember him

Taken in Humboldt County *Photo by the Author*

NEST AND EGGS OF VAUX SWIFT, IN SITU

eggs shown on this page.

Sitting birds, when discovered, drop below the nest and hide, clinging easily to the smoothest shaft by means of their tiny, needle-clawed feet, supported by the spiny tail. The young birds, likewise, quickly forsake the frail shelf which first cradled them; but it is several weeks before they get a wider

Taken in Humboldt County *Photo by the Auth*

AN INSIDE VIEW

LOOKING DOWN THE BARREL OF A HOLLOW REDWOOD STUB

pleasantly year by year, and the situation looks "dead easy" to an outsider. But after we had tried for two weeks to break into the game and had ruined two prospects of our own we were glad to avail ourselves of his skilled services. A well screened redwood stub meekly reposing within the corporate limits of Eureka, and supporting an ancient and rickety cleat ladder of Mr. Davis's construction, yielded us the photographs and the

view of the world than that which is afforded by their dismal nursery.

A careful observer in southern California will never fail to note the passage of the Vaux Swifts in migrations; but they are very variable both as to abundance and time of appearance. Their movements are controlled, no doubt, by weather conditions and the attendant variation of insect life. I have seen thousands of them in a day here at Santa Barbara under conditions which suggested a major representation of the species. They are never, I believe, counted locally abundant on their breeding grounds, and it would be safe to say that their total number does not approximate one-tenth that of eastern *pelagica*. Vaux Swifts mingle freely with others of the Cypseline kind, and with Swallows as well. They could never be mistaken for White-throats, nor seriously confused with the Tree Swallows, but when they are moving at considerable heights, one casts about in vain for some standard of comparison which may serve to distinguish them from Black Swifts (*Nephœcetes niger borealis*).

No. 190

Hairy Woodpecker

No. 190a Modoc Woodpecker

A. O. U. No. 393d, part. **Dryobates villosus orius** Oberholser.

Synonym.—Sierra Woodpecker (Ridgway).

Description.—*Adult male:* Above, in general, black, glossy (at least) on head and nape, paling, brownish dusky, on quills; nuchal feathers slightly lengthened, the anterior ones scarlet-red, forming a short nuchal band; nasal tufts dingy white; a narrow white superciliary and a broad white rictal stripe, curving upward and sometimes nearly meeting fellow on hind nape (rarely connecting with white of back); a black area included on side of head continuous with nape; a black malar stripe broadening behind; a lengthened white patch down middle of back, connecting with sides of rump, or not; one to several rounded spots of white on middle wing-coverts, or not; primaries (except usually the first) and the outer secondaries marked with angular white spots on outer webs and with large rounded spots on the inner webs, the spots tending to fall into bars on the closed wing; the two outer pairs of tail-feathers white on exposed portion, and the succeeding pair chiefly white on outer web and tip; under parts sordid white or dingy brownish gray. Bill and feet plumbeous; iris reddish brown. *Adult female:* Like male, but without red on head. *Immature:* Like adult, but crown, instead of nape, red (scarlet, grenadine red, grenadine, or even yellowish); the forehead and often the crown finely spotted with white. Length about 228.6 (9.00); wing 129 (5.08); tail 80 (3.15); bill 32 (1.26); tarsus 23 (.91). Bill of female 27 (1.06).

Remarks.—*Dryobates villosus* is a highly variable species, of which some twenty forms are now recognized. The chief variable is that of size, which increases from the diminutive *auduboni* of Florida to a form, *leucomelas*, or *septentrionalis* (Nuttall), of interior Alaska, which bulks fully twice as large. Another variable developed in

the West is that of soiled or darkened underparts. The form *orius* occupies a mediating position between *monticola* of the northern Rockies, which is larger and has white underparts, and, on the one hand, *hyloscopus*, a smaller bird, of south coastal and interior California, and on the other, *harrisi*, a "saturated," or brown-bellied form, from our northwest coast. Intergradation is, therefore, from an assumed center in Modoc County with *hyloscopus* through the northern Sierras and with *harrisi* through the Shasta region and westward. As matter of fact, the real center of distribution of this form is much further north, in Oregon, and it could never have been separated from *hyloscopus* on the basis of California specimens alone.

Recognition Marks.—Towhee size; black-and-white pattern of head (10 alternating areas of black and white viewed anteriorly at latitude of eye) *with size*, distinctive; back *not* barred, as distinguished from *D. scalaris cactophilus* and *D. nuttalli*; larger; a little larger than *D. v. hyloscopus;* much lighter below than *D. v. harrisi.*

Nesting.—Much as in succeeding form.

Range of *D. villosus.*—Wooded portions of North America south to Panama.

Range of *D. v. orius.*—The Sierra-Cascade Mountain system from south central Washington to central California, and east over the lesser ranges to Nevada.

Distribution in California.—Common resident in northeastern portion of State. Typically in Modoc County, shading into *hyloscopus* somewhere in the Tahoe sector, and into *harrisi* in the Trinity Mountains.

Authorities.— **Sclater** (*Picus harrisi*), Proc. Zool. Soc. London, 1858, p. 3 (near Shasta); *Ray*, Auk, vol. xxii., 1905, p. 365 (Tahoe region; desc. nest and eggs); *Oberholser*, Proc. U. S. Nat. Mus., vol. xl., 1911, p. 597 (orig. desc.; Quincy).

No. 190b Cabanis's Woodpecker

A. O. U. No. 393d. **Dryobates villosus hyloscopus** Cabanis & Heine.

Description.—Similar to *D. v. orius*, but somewhat smaller. Length 203.2-222.25 (8.00-8.75); wing 122 (4.81); tail 75 (2.95); bill 31 (1.22); tarsus 21 (.83). Female bill 27 (1.06).

Remarks.—This long-recognized form exhibits the tendency toward reduction of size in southern birds; but this tendency is less pronounced on the Pacific Coast than in the East. *Hyloscopus* intergrades with *harrisi* through an indeterminable area north of San Francisco Bay; and with *orius* through a still less determinable area in the central northern Sierras.

Recognition Marks.—As in preceding.

Nesting.—*Nest:* An excavation in tree, either live or dead, and usually at moderate heights; lined sparingly with chips. *Eggs:* 3 to 6, usually 4; pure white. Av. size (subspecies not clearly distinguished) 24.9 x 18.5 (.98 x .73). *Season:* April–May (El Monte, Los Angeles Co., Mar. 25, 1900, by Antonin Jay); one brood.

Range of *D. v. hyloscopus* (Chiefly within California).—The timbered districts of northern Lower California and southern California north Sierrawise to Mono Lake and the White Mountains, coastwise to Mendocino County.

Authorities.—**Vigors** (*Picus villosus*), Zool. Voy. "Blossom," 1839, p. 23 (Monterey); *Cabanis and Heine*, Mus. Hein., iv., heft 2, 1863, p. 69 (orig. desc.; San Jose); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 53; *Beal*, U. S. Dept. Agric., Biol. Surv. Bull., no. 34, 1910, p. 15, part (food); *Oberholser*, Proc. U. S. Nat. Mus., vol. xl., 1911, p. 597 (monogr.).

No. 190c White-breasted Woodpecker

A. O. U. No. 393d, part. **Dryobates villosus leucothorectis** Oberholser.

Synonyms.—Southwestern Hairy Woodpecker. Arizona Hairy Woodpecker.

Description.—*Adults:* Similar to *D. v. orius*, but slightly smaller; the underparts pure white. A very dubious race. Males average: wing 126.8 (4.99); tail 79.4 (3.126); bill 30.8 (1.21); tarsus 21.5 (.846). Females smaller.

Range of *D. v. leucothorectis.*—Canadian and Transition areas of the desert ranges of the Southwestern States.

Range in California.—At least the White and Panamint Mountains.

Authority.—Grinnell, Condor, vol. xx., 1918, p. 86.

No. 190d Harris's Woodpecker

A. O. U. No. 393c. **Dryobates villosus harrisi** (Audubon).

Description.—Similar to *D. v. orius*, but underparts (including lateral rectrices) much darker, buffy brown, or pale snuff-brown; white of back and head usually tinged with buffy brownish, the white never pure save on superciliaries, and back-patch, and (always) spots of wings. Length and proportions not appreciably different.

Nesting.—As in *D. v. hyloscopus.*

Range of *D. v. harrisi.*—Humid Pacific coastal region from southeastern Alaska to Humboldt Bay; south in winter to Monterey.

Distribution in California.—Common resident of the humid northwest coastal counties; east in winter through the Siskiyou Mountains, and irregularly south to Monterey.

Authorities.—Newberry (*Picus harrisi*), Rep. Pac. R. R. Surv., vol. x., pt. iv, 1859, p. 89 (n. Calif.); *Shufeldt*, Auk, vol. v., 1888, p. 212, figs. (pterylosis); *Anderson and Grinnell*, Proc. Acad. Nat. Sci. Phila., 1903, p. 7 (Siskiyou Mts.; crit.); *Jenkins*, Auk, vol. xxiii., 1906, p. 168, map (variation, distr., etc.); *Oberholser*, Proc. U. S. Nat. Mus., vol. xl., 1911, p. 597 (monogr.).

THE HAIRY Woodpeckers in their three localized forms may be said roughly to occupy all the mountain forests and timbered streams in California; but the occupation is not a close one at the lower levels; and the bird is decidedly more abundant in the northern and more elevated portions of its range. Again, the depths of the forest do not often claim him, for his favorite resorts are old burns and the edges of clearings, logged-off areas, open, rangy woods, and interrupted groves. In summer the bird ranges up to timberline, a little above the normal breeding level; and in winter it visits the live oaks and the sycamores, or even takes a turn through the chaparral. Although a resident, therefore, in the accommodated sense, the year around, we are quite likely to overlook his presence until cold weather appears to quicken his pulses, and to send him careering noisily over the treetops. He has spent the night, it may be, in the heart of a fir stub at the end of his winter tunnel, and

Taken in Oregon *Photo by Bohlman & Finley*

HARRIS WOODPECKER

now he covers a half-wooded pasture with great bounds of flight, shouting, *plick, plick*, from time to time; and he gives a loud rolling call —a dozen of these notes in swift succession—as he pulls up in the top of a dead tree to begin the day's work.

He is an active fellow, hitching up or dropping down the tree-trunk with brusque ease, and publishing his progress now and then in cheerful tones. But he knows how to be patient too. In the search for hidden worms and burrowing larvæ, it seems not improbable that the Woodpecker depends largely upon the sense of hearing—that he practices auscultation, in fact. A meditative tap, tap, is followed by a pause, during which the bird evidently marks the effect of his strokes, noting the rustle of apprehension or attempted escape on the part of the hidden morsel. It is not unusual for the bird to spend half an hour tunneling for a single taste, and even then the wary game may withdraw along some tunnel of its own, even beyond the reach of the bird's extensible tongue.

Nearly half of the Cabanis Woodpecker's food consists of the larvæ of wood-boring beetles (the *Cerambycidæ* and *Buprestidæ*); and of the remainder the caterpillars of various injurious moths form a large per cent. Wild raspberries and blackberries are eaten in summer, and certain hardy fruits, such as cornel berries, acorns, and the pits of the islay, or evergreen cherry (*Prunus ilicifolia*), eke out the winter sustenance. But the Hairy Woodpecker has never been accused of depredations in the orchard, while his services as a supervising forester are beyond recompense.

The bird has other uses for timber besides that of larder. He loves a dry tree, as well, for its noise-making possibilities. And I suppose if we were astute enough in observation, we could decipher his signalling system, or musical scale. Speaking of this habit, as exhibited in the San

Bernardino Mountains, Dr. Grinnell says:[1] "The resonant rattling drum of the Cabanis Woodpecker identified this species from any other of this region. Near Dry Lake, 9000 feet altitude, dead tamarack pines were selected for this purpose, and on June 23rd, 1905, I listened for many minutes to a remarkable demonstration of this bird. Different branches

Taken in the Warner Mts. *Photo by the Author*

THE UPPER LIMITS OF CABANIS'S NESTING RANGE

were tattooed in rapid succession, so that a xylophone-like variety of tones was produced, very impressive and far-carrying through the otherwise quiet forest."

The nest of this bird must also be excavated in a tree, either a dead fir or pine, or, more rarely, a living alder. It may be at any convenient height in the tree, from four to eighty feet; but it will be about ten inches deep and it will have no lining save a few fine chips, among which the crystal white eggs, four or five in number, lie partially imbedded. Incubation is begun anywhere from the last week in March to the last in May, according to altitude; and but one brood is raised in a season. These woodpeckers are exceptionally valiant in defense of their young, the male,

[1] "The Biota of the San Bernardino Mountains," by Joseph Grinnell, Berkeley. The University Press, Dec 31, 1908.

in particular, becoming almost demented from indignation at the appearance of an enemy near the home nest.

It is a fair question whether the Harris Woodpecker of the extreme Northwest did not get his dingy breast through long association with his grimy grub-cupboards. The dead trees which he frequents, where not actually blackened by fire, are often stained with decaying fungic growths and clinging spores, so that the snowy shirt-front of the eastern Hairy Woodpecker would be small satisfaction to him here. Or if this grimy condition of tree-trunk be not the *terminus a quo* the smoky front of the Woodpecker started, it is certainly the *terminus ad quem* its color is accurately tending. And, of course, it is easy to see how these conditions are due exactly to the humidity which prevails on the Pacific Coast, and to a lesser degree through the Trinity and Siskiyou ranges. The dry dirt of the Rocky Mountain pines is by comparison clean dirt, and so *Dryobates villosus* is able to take some decent pride in his linen as he proceeds eastward.

No. 191

Downy Woodpecker

No. 191a Rocky Mountain Downy Woodpecker

A. O. U. No. 394b. **Dryobates pubescens leucurus** Hartlaub.

Synonym.—Batchelder's Woodpecker.

Description.—Similar to *D. villosus orius*, of which it is a close miniature. The differences are chiefly in the spotting of the wings and the pattern of the lateral tail-feathers: to-wit, spotting of coverts more extensive, involving tips of greater as well as middle coverts; spotting of quills more extensive, involving all the flight-feathers and appearing prominently as paired spots on exposed portions of inner tertials; the two outer pairs of rectrices marked with black in two or three broken or entire subterminal bars; the black of malar stripe reduced and diffused, especially anteriorly. Sex changes as in *D. villosus*. Length about 165.1 (6.50); wing 100 (3.94); tail 63 (2.48); bill 17 (.67); tarsus 16.3 (.64).

Remarks.—The geographical variations of *D. pubescens* follow roughly the outlines of its larger prototype, *D. villosus*, but the differences are not so far developed, insomuch that only seven forms are recognized within the same area. The analogy in the variation of the two species is especially close within the limits of California. *D. p. leucurus*, like *D. v. orius*, is the larger, whiter-bellied form, which establishes connections with the northern Rockies. But because it holds the ground covered by three recognizable forms of the *villosus* group, *monticola*, *leucothorectis*, and *orius*, it comes to us with pure white underparts, in stronger contrast to the prevalent form, *turati*.

Recognition Marks.—Sparrow size; black and white color-pattern of head; back

white centrally, contrasting with solid black of shoulders, *not barred*, as distinguished from the equal-sized Nuttall and Cactus Woodpeckers; a miniature of *D. villosus* subsp.

Nesting.—Much as in next form.

Range of *Dryobates pubescens.*—Temperate North America.

Range of *D. p. leucurus.*—Western United States and central British Columbia from the eastern members and outliers of the Sierro-Cascade system east to eastern Montana and western Nebraska, south to Arizona and New Mexico; breeding throughout its range and wandering somewhat more widely in winter.

Distribution in California.—Summer resident in the Transition zone of the Warner Mountains, and in the pinyon belt of the Panamint and Grapevine Mountains, Inyo County. Casual at lower levels in winter, chiefly east of the desert divide.

Authorities.—**Fisher,** Condor, vol. iv., 1902, p. 69 (crit., diagnosis, nomencl.); *Grinnell,* Condor, vol. xxv., 1923, p. 30 (status in Calif.; nomencl.).

No. 191b Willow Woodpecker

A. O. U. No. 394e. **Dryobates pubescens turati** (Malherbe).

Description.—Similar to *D. p. leucurus,* but somewhat smaller, and shade of underparts much darker, buffy brown or grayish drab. Length 146-158.75 (5.75-6.25); wing 92.5 (3.64); tail 55 (2.165); bill 16 (.63); tarsus 16.1 (.63).

Remarks.—While the lines of confluence between *leucurus* and *turati* are still imperfectly made out, Ridgway's suggestion that *turati* occupies Upper Austral and Transition zones, save in the extreme Northwest and Southeast is probably the correct one. Hence, although *turati* is the analogue of *hyloscopus* of the *villosus* group, it is much more nearly related to *gairdneri* than *hyloscopus* is to *harrisi.* It may be assumed, therefore, that *turati* is intrusive from the Northwest, rather than locally derived, and this assumption is supported by occasional specimens from the southern Transition, which are nearly or quite as dark as those labelled *gairdneri* from Humboldt County.

Nesting.— *Nest:* A hole excavated by the birds in tree, usually deciduous, as willow, cottonwood, alder, and the like; at moderate heights. *Eggs:* 4 or 5, 7 of record; white. Av. size 19.1 x 15.2 (.75 x .60). *Season:* April–May; one brood.

Range of *D. p. turati* (Wholly contained within California).—Resident in Upper Sonoran and Transition zones of California, except in extreme northwestern and northeastern sections and in the desert mountains. Largely confined to deciduous timber along the banks of streams.

Authorities.—**Nuttall** (*Picus meridionalis*), Man. Orn. U. S. and Can., 2d ed., vol. i., 1840, p. 690 (Calif.); *Malherbe,* Monographie des Picidees, i., 1861, p. 125 planche 28 (orig. desc.; Monterey); *Bendire,* Life Hist. N. Am. Birds, vol. ii., 1895, p. 58, part); *Fisher,* Condor, vol. iv., 1902, p. 68 (diag., crit., meas.); *McAtee,* U. S. Dept. Agric., Biol. Surv. Bull., no. 37, 1912, p. 17, part (food).

No. 191c Gairdner's Woodpecker

A. O. U. No. 394a. **Dryobates pubescens gairdneri** (Audubon).

Description.—Like *D. p. turati,* but underparts averaging darker, and white of head and back often tinged with brownish; also a little larger. Length 152.4-165.1 (6.00-6.50); wing 95 (3.74); tail 58 (2.28); bill 16.4 (.645); tarsus 16.6 (.65). Female a little smaller.

Remarks.—This form is the exact analogue of the "saturated" form, *D. villosus harrisi*, having its center of abundance in the humid coastal belt of Oregon and Washington. No hard-and-fast line can be drawn between it and *turati*, however, whether north or south of San Francisco Bay. Indeed, *gairdneri-turati* may be regarded as a gradually paling strain, intrusive from the Northwest. The recognition of *gairdneri* in California illustrates a sequence rather than establishes a fact.

Range of *D. p. gairdneri.*—Resident in humid Transition zone from southern British Columbia to Mendocino County, California.

Authorities.—(?) **Heermann** (*Picus meridionalis*), Rep. Pac. R. R. Surv., vol. x., pt. iv., no. 2, 1859, p. 57 (mts. of n. Calif.); *Fisher*, Condor, vol. iv., 1902, p. 68 (diag., meas., Calif. localities of capture); *Anderson and Grinnell*, Proc. Acad. Nat. Sci. Phila., 1903, p. 7 (Siskiyou Mts.; crit.).

THE DOWNY Woodpecker is an almost perfect miniature of the Hairy type, even in flight and voice. The parallelism between the two species is, moreover, so close that it follows them in their geographical changes, for both are wide-spread. The Willow Woodpecker, *D. p. turati*, is, therefore, roughly the analogue of the Cabanis, *D. v. hyloscopus;* the Batchelder, *D. p. leucurus*, of the Modoc, *D. v. orius;* and especially the Gairdner, *D. p. gairdneri*, that of the Harris Woodpecker, *D. v. harrisi;* for to the same causes must be attributed the soiling of bosoms once immaculate. In making further comparison, however, we find that the Willow Woodpecker (under which name we may most conveniently speak of California Downies) is much more restricted in its range than its larger congeners. It is nearly confined to the Upper Sonoran zone, save in the northern part of the State, where it invades Transition; and in winter it may make little excursions into the desert to hobnob with the Cactus Woodpecker, *D. scalaris*. In its normal range it is chiefly confined to deciduous timber, and shows a great preference for wooded bottoms and the borders of streams. Willow trees are everywhere its most natural association, yet sycamores, alders, and occasionally oaks and fir trees afford nesting sites. Foraging expeditions are regularly undertaken into neighboring groves of live oak or pine, as the case may be, and visits are paid, wherever the cover allows, to apple orchards.

It is as an orchardist that the Willow Woodpecker deserves the most careful consideration. Bird-lovers are, perhaps, prone to superlatives in commending their friends, but it is safe to say that a more useful bird *for his ounces* than the Downy Woodpecker does not exist. He eats not only ants and the larvæ of wood-boring beetles, but scale insects, plant lice, and the pupæ of the detestable codling moth. The evidence is clear that these incomparable tree experts, together with their friends, the nuthatches, the chickadees, and the creepers, would insure the health of our orchards if they were numerous enough. It becomes of the highest

GAIRDNER WOODPECKER

importance, then, to study their welfare in turn. In the northern and more elevated valleys of the State, it may be worth while to offer them

nuts or to hang out a bit of suet in winter. In the South no such precautions are necessary. A fundamental consideration, however, is the provision of suitable nesting sites. Experiment has shown that the Downy's forage range during the breeding season is not extensive. The clamoring young are fed by the product of nearby trees (fed, it may be, a thousand insects a day). Their services, therefore, must be secured in the orchard; and to this end the orchardist must consent to leave certain dead branches—a foot or so at the base of the larger ones will do—for a nesting site. Dead wood, of course, invites insects; but the most serious and frequent mistake which our California orchardists make is to trim out all the dead wood from the fruit trees. A pair of Willow Woodpeckers, or of Slender-billed Nuthatches, will clean out all the dangerous pests from a dead tree, and sixteen live ones to boot.

It is worth while, too, from almost any standpoint, to cultivate the friendship of a pair of these birds. Their abounding good cheer, as expressed in vigorous *pink* notes and in a merry rolling cry, as well as their untiring industry, may well be an inspiration to any farmer boy. As for the bird-man, he never feels quite at home in the river grove until this capable elf has come around to say "howdy," or to shrewdly size up the invader. Of course the pretense that that particular tree right over your head needs inspection at that particular moment, *tap-tap, tap-tap*, is as hollow as the accidental meeting of lovers on the way home from school,—and for something the same reason, if we deserve our luck.

It is at times difficult to distinguish, in the case of the *pink* notes and the longer rattling call, between the voices of this bird and the Cabanis; but the notes of the smaller bird are usually much less in volume and strength, and have a rather more nasal quality. All woodpeckers have, also, a sort of signal system, or Morse code, consisting of sundry tattoos on resonant wood. These calls are used principally, or exclusively, during the mating season, and consist, in the case of the Willow, of six or seven taps in regular and moderate succession. The birds have favorite places for the production of these sounds; and it is probable that birds are able to distinguish their calling mates by the timbre of the smitten wood, as well as by some subtle variation of tempo which escapes unfamiliar ears.

Willow Woodpeckers, in the wild, place their nests at considerable heights in deciduous trees, and those, if possible, among thick growths on moist ground. Both sexes assist in excavation, as in incubation. Partially decayed wood is selected, and an opening made about an inch and a quarter in diameter. After driving straight in for an inch or two, the passage turns down and widens two or three diameters. At a depth of a foot or so the crystal white eggs are deposited on a neat bed of fine chips.

Incubation lasts twelve days, and the young are hatched some time in May.

Mr. Bowles asserts that when a tree containing eggs is rapped, the sitting bird will try, sometimes successfully, to deceive the inquirer by coming to the entrance and dropping out a mouthful of chippings, thus conveying the impression that she is still building. It's a shame to give it away.

No. 192

Cactus Woodpecker

A. O. U. No. 396. **Dryobates scalaris cactophilus** Oberholser.

Synonym.—Formerly called BAIRD'S WOODPECKER.

Description.—*Adult male:* Extreme forehead and nasal tufts snuff-brown, shading into sooty brown of forehead, thence through black of crown, narrowly tipped with scarlet-red and broadly subtipped with white, to nearly pure scarlet-red of sides of occiput and nape, the fore-crown thus speckled with red and white in varying proportions; cervix (narrowly), upper tail-coverts, and tail from above, black; back and wings sooty brown or brownish dusky, heavily and equally barred or spotted with white, the spotting of wings involving flight-feathers arranged in rows, equivalent to bars when in repose; sides of head and neck, including superciliaries and remaining underparts, pale buffy brown fading to white on sides and crissum; included area on sides of head black, invaded by malar streaks of buffy brown or whitish; the sides of breast sharply and heavily spotted with brownish black; the sides, flanks, and crissum indistinctly barred with dusky; the under (outer) feathers of the folded tail equal-barred black-and-white. Bill and feet dusky horn-color; iris brown. *Adult female:* Like male, but without red on crown or nape, glossy black instead, shading to sooty brown on forehead; forehead sometimes sparingly speckled with white. *Young male:* Like adult male, but nape and sides of occiput black, the red carried forward and prevailing on crown; plumage softer and pattern slightly blended. *Young female:* Like young male, but red of crown somewhat reduced. Length of adult male: 158.75-184.2 (6.25-7.25); wing 104 (4.09); tail 60.8 (2.39); bill 22.7 (.89); tarsus 18.1 (.71). Females average slightly less.

Remarks.—*Dryobates scalaris* is a vigorous and considerably differentiated stock prevalent in Mexico (including Lower California) and Central America. Fifteen subspecies are recognized by Ridgway, of which two reach the United States, *cactophilus* widely, and *symplectus* more narrowly, through central Texas to southeastern Colorado. *D. s. cactophilus* may be regarded as a younger brother of *D. nuttalli,* more recently arrived from Mexico, and already crowding upon and interpenetrating the range of the older bird. Hybrids between the two forms are suspected.

Recognition Marks.—Sparrow size; black-and-white barred upperparts distinctive from all save *D. nuttalli,* from which it requires careful discrimination: *cac-*

tophilus is browner above, more strikingly, heavily, and numerously barred, with less of black on sides of head, and red (of adult male) pervading crown as well as nape.

Nesting.—*Nest:* A hole at moderate height in giant cactus, Joshua-tree, willow, or other tree. *Eggs:* Usually 4; pure white, glossy. Av. size 20.7 x 15.9 (.82 x .63). *Season:* March 25–May, rarely June; one brood.

Range of *Dryobates scalaris.*—The southwestern United States south over the highlands of Mexico to Yucatan and British Honduras.

Range of *D. s. cactophilus.*—Resident in the Sonoran zone of the southwestern states, from western Texas to southern Nevada and southeastern California.

Distribution in California.—The southeastern deserts, broadly; hence, occasionally invading the domain of *nuttalli* through Walker and San Gorgonio Passes.

Authorities.—Baird (*Picus scalaris*), in Rep. Stansbury's Surv. Great Salt Lake, 1852, p. 333 (Calif.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 65, pt.; *Oberholser*, Proc. U. S. Nat. Mus., vol. xl., 1911, p. 140 (monogr.); *Grinnell and Swarth*, Univ. Calif. Pub. Zool., vol. x., 1913, p. 241 (San Jacinto region; desc. nests and habits; distr.; crit.); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 132 (Colo. Valley; habits, desc. nest and eggs, etc.).

WE HAVE become so accustomed to associating Woodpeckers with big timber, that it strikes us as uncanny to flush a Cactus Woodpecker from a creosote bush at the edge of the desert, and to have it go *plick*ing contentedly from one bit of dwarf vegetation to another. It is an inexorable law of nature that every available space shall be occupied; so here is Sir Cactophilus, the apostle of content, making the best of a very humble lot, and envying the mighty Logcock not a whit. Of course it must not be understood that the Cactus Woodpecker tries to live in the central wastes of the desert; for however much it may forage over the creosote and cholla patches, on occasion, it requires something of more ample girth for a nesting site. Hence, its breeding range is confined to the more fruitful upper edges of the Lower Sonoran zone, and to the moister bottoms. In the former situation the dried stalks of the agave and the lesser yucca (*whipplei*), or of the Joshua tree (*Yucca arborescens*), and the Mohave Yucca offer asylum. In the valley of the Colorado, fearing no rivalry from *D. pubescens turati*, the Cactus Woodpecker is able to monopolize the willows which grow so rankly along the lagoons. In the two or three limited areas where the giant cactus crosses the river to the California side, the Cactus, too, gladly establishes its home within the fluted columns, as it does habitually in Arizona. The ripened fruit of this giant cactus the bird counts a special delicacy. Outside of these favored spots, the stubborn mesquite tree must be conquered, and it is rather a pathetic sight to see a nesting cavity which has been drilled with infinite pains out of this iron-like wood. Last of all, comes the telegraph pole to offer its more easily-won shelter to this child of the desert. *Cactophilus*, in his fresh enthusiasm, is ready to be rechristened *telegraphpoleophilus*,

Taken in Los Angeles County *Photo by the Author*

JOSHUA TREES (*Yucca arborescens*) ON THE MOHAVE DESERT
CACTUS WOODPECKERS AND MANY OTHER SPECIES OF BIRDS NEST IN THESE YUCCA "FORESTS"

for the attenuated forest planted by Western Union, and stretching gauntly across the Colorado Desert, gives our woodpecker access to leagues of territory otherwise unattainable. However, too much enthusiasm on the part of these little miners may impair the usefulness of a small telegraph pole. Indeed, it is to be feared that *D. scalaris* and his brood are *personæ non gratæ* to those magnates who depend upon W. U. dividends. Shucks! Let the birds have their fun. What's a telegraph pole between friends!

One does come to have a very friendly feeling for these plucky little chaps, whose business is so conducted in the open. The very lizards are endeared to the true "desert rat." How much more this saucy Ladderback, with his *plink plink*, and his long rolling chirrup!

No. 193

Nuttall's Woodpecker

A. O. U. No. 397. **Dryobates nuttalli** (Gambel).

Description.—Similar to preceding species. *Adult male in fresh plumage:* Nasal tufts white or pale brownish buffy; forehead and crown glossy black, speckled

sparingly (but with increase both in size and abundance toward hind-crown) with white; nape, broadly, scarlet-red; superciliary, expanding on side of neck, and a sharp rictal stripe under eye, white; a broad postocular area and a malar stripe, connecting behind and continuous with broad band across cervix, upper tail-coverts, and tail above, glossy black; back and wings black, shading posteriorly to dusky, barred or spotty-barred with white; underparts white, tinged on breast and belly with pale yellowish buff, or brownish buff; sides of breast and sides coarse-spotted, flanks and crissum coarse-barred with black; graduated series of exposed under lateral rectrices white, crossed by three or four broken or irregular black bars. Bill and feet dark horn. With the advance of the season and usually in spring and summer the white tips of the coronal feathers wear off, leaving a solid black crown. *Adult female:* Like male, but without red on head, a few scattering coronal or nuchal white specks wear off in spring. *Young male:* Like adult male, but red shifted forward to crown, where mingled with white specks. *Young female:* Like young male but red restricted to crown; the white speckling similarly restricted to middle of forehead and crown. Length of adult male about 177.8 (7.00); wing 102.7 (4.04); tail 63.8 (2.51); bill 20.8 (.82); tarsus 18.4 (.72). Females perceptibly smaller.

Remarks.—*D. nuttalli* bears closest relationship to *D. scalaris*, of which it is undoubtedly an early derivative. Presumably a zonal or associational connection suitable to the advance of *nuttalli*'s ancestors once existed between California and Mexico. This zonal bridge was later destroyed, and *nuttalli* evolved in southern California in the direction of increase of black and in the clearing of the underparts. It is noteworthy also that the shifting of red from crown to nape of the male approaching maturity, follows the example of *D. villosus* and *D. pubescens*, this tendency, although manifest, having been retarded in the case of *D. scalaris*. *D. scalaris cactophilus*, now acclimated to arid conditions, has latterly overtaken its long-lost brother, and there is a bit of a fight on along *nuttalli*'s southeastern borders.

Recognition Marks.—Sparrow size; black-and-white-barred upperparts distinctive within range, except with regard to *D. scalaris cactophilus* (see ante).

Nesting.—*Nest:* A hole excavated at any height in tree, live or dead, lined copiously with chips. *Eggs:* 4 or 5; white, glossy. Av. size 21.3 x 16.2 (.84 x .64). *Season:* April 10–May 20; one brood.

Range of *Dryobates nuttalli* (Chiefly confined within California).—Resident in the Upper Sonoran life zone west of the Sierras from southwestern Oregon to northwestern Lower California. Casual on the edges of the deserts. Not found in the northwest humid district nor upon the islands.

Authorities.—Gambel (*Picus nuttallii*), Proc. Acad. Nat. Sci. Phila., vol. i., 1843, p. 259 (orig. desc.; Los Angeles); *Gault*, Bull. Ridgway, Orn. Club, no. 2, 1887, p. 78 (range, habits, etc.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 65; *J. Mailliard*, Condor, vol. ii., 1900, p. 13 (plumage changes); *Mailliard and Grinnell*, Condor, vol. vii., 1905, p. 75 (apparent hybrid).

ALTHOUGH one who is forming the acquaintance of the Nuttall Woodpecker soon learns where to look for him, his range is hard to characterize in terms of associations. Upper Sonoran, foothill, oak, live oak, chaparral, deciduous trees bordering narrow stream beds—all these apply to *nuttalli* well enough, but they are not exhaustive, save for the

first, which is all inclusive. Within Upper Sonoran limits it is, perhaps, easier to tell where he will not be found; thus, not (or only occasionally) in pine timber; not in stands of pure willow (which are given over to *D. pubescens turati*); not in orchards, nor about cultures of any sort; not, most decidedly, "nesting in giant cactus." (One may be very sure that Xantus's classical instance, oft quoted, concerned itself with *D. scalaris*, instead of *D. nuttalli*.) Least of all, is it "seldom found along streams," as one precocious authority[1] avers. A narrow canyon whose floor harbors sycamores and alders and bay trees, nourished by a purling stream, and whose sides are lined with live oaks which run up into ceanothus chaparral, is precisely the best place to look for *D. nuttalli*.

Taken in San Diego County *Photo by Donald R. Dickey*

YOUNG NUTTALL WOODPECKERS

D. nuttalli is an irritable, not to say noisy, beastie; and it is ten to one you hear him tittering apprehensively from the depths of the chaparral before you see him emerge to fly over the tops of the cover. The Nuttall Woodpecker, as a good friend in the Cooper Club declares,

[1] "Birds of California," by Irene Grosvenor Wheelock, p. 365. This widely circulated product of a Chicago pen exhibits throughout its cheery pages the valor of ignorance.

The Nuttall Woodpecker

Taken in San Bernardino County *Photo by Pierce*

A COMPLETE EXHIBIT
EGGS AND FEMALE PARENT, NUTTALL WOODPECKER

always has a grouch on, and you are sure to be challenged as you pass, by a repetition of his double notes of distrust, *ticket, ticket—ticket it.* Besides these, he makes frequent use of a rattling, staccato cry which reverberates through the woods in defiance of all the decencies. This noisy publication is probably intended for home consumption, a keep-in-touch note, powerful enough to penetrate the mazes of the forest, whereby a distant partner is advised of progressive movement. This call is almost invariably sounded, therefore, before a bird quits a given locality.

Exact rules may be drafted for Nuttall's nesting from a single instance. Thus, its nest is always excavated in "a decayed part of the tree"—except when it elects to drill into the live heart-wood of an oak or a sycamore, as I have seen it do in Los Canoes Canyon. "It nests at moderate heights"—from 2½ to 60 feet!—"in a willow tree"—also alder, elder, cottonwood, sycamore, live oak, maul oak, white oak, etc.

The male Nuttall not only takes a lively interest in all matters connected with the nesting, but it is believed that he monopolizes the task of excavation. Certainly he takes his turn at incubating, and he is invariably,

in my experience, the more valiant of the two in defense of young. The female, however, is probably the closer sitter, as there are several instances in which she has submitted to the hand rather than forsake her trust. Fresh eggs, typically four, are deposited on a generous cushion of sawdust about the 20th of April. Incubation lasts two weeks; and when the chicks are astir the father is fairly beside himself with joy and apprehension. In fact, if you ever require a symbol of doting solicitude, picture a male Nuttall Woodpecker thrusting his head into a dark hole to make sure that nothing has spilled out of it since his last inspection—which occurred exactly three seconds ago. Nothing could happen, you know; but then again, it might. *Voyons!*

No. 194

White-headed Woodpecker

No. 194 Northern White-headed Woodpecker

A. O. U. No. 399. **Xenopicus albolarvatus albolarvatus** (Cassin).

Description.—*Adult male:* General plumage black and white; head and neck white, nasal tufts sometimes tinged with brownish buffy, the crown sometimes ashy or buffy or even dingy plumbeous through abrasion of white tips, interrupted by narrow postocular stripe of black, and bounded behind by nuchal band, spectrum red; flight-feathers dull black; a large white patch on primaries and outer secondaries, involving both webs but extending much further on outer webs of primaries, often echoed by disconnected distal spots; remaining plumage glossy black. Bill and feet black; iris brownish red. *Adult female:* Like male, but without red on nape. *Young male:* Like adult male, but black duller; the red shifted forward to crown, broader, lighter (to flame-scarlet or grenadine), often interrupted or streaky. *Young female:* Like young male without red, or only faintly streaked with red on hind crown. Length of adult 203.2-241.3 (8.00-9.50); wing 127 (5.00); tail 81 (3.19); bill (male) length 28.1 (1.11), depth at base 7.6 (.30); bill (female) length 25.3 (.996), depth 7.1 (.28); tarsus 21.5 (.847).

Recognition Marks.—Towhee to robin size; white head contrasting with solid black, distinctive.

Nesting.—*Nest:* A hole in conifer, live or dead, at moderate height. *Eggs:* 3 to 7, usually 4; pure white. Av. size 24.1 x 18 (.95 x .71). *Season:* June.

Range of *Xenopicus albolarvatus.*—Resident in Transition zone in the Sierra-Cascade Mountains with their outliers from southern British Columbia to southern California, east to western Idaho and western Nevada.

Range of *X. a. albolarvatus.*—That of the species minus the mountains of southern California.

Distribution in California.—Resident along both slopes of the Sierra Nevada. Also the Warners, the Siskiyous, and south to Snow Mountain, Colusa County (Grinnell), and on Mt. Pinos, west through the San Rafaels.

Authorities.—Cassin (*Leuconerpes albolarvatus*), Proc. Acad. Nat. Sci. Phila., vol. v., 1850, p. 106 (orig. desc.; type locality, Oregon Canyon, Eldorado Co.); *Brewer*, Bull. Nutt. Orn. Club, vol. v., 1880, p. 56 (Placer Co.; desc. nest, eggs); *Lucas*, U. S. Dept. Agric., Div. Orn. and Mamm., Bull. no. 7, 1895, p. 37, pl. ii., fig. 8 (structure of tongue); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 70, part; *Barlow*, Condor, vol. iii., 1901, p. 162 (Sierra Nevada, nests, habits).

No. 194a Southern White-headed Woodpecker

A. O. U. No. 399, part. **Xenopicus albolarvatus gravirostris** Grinnell.

Synonym.—Grinnell's Woodpecker.

Description.—Similar to *X. a. albolarvatus*, but bill averaging larger. Bill (male) length 29.7 (1.17), depth 8.3 (.33); (female) length 27.4 (1.08), depth 7.9 (.31).

Remarks.—This form is based on a single light character, that of a bill averaging 5% larger in the male and 6% in the female. Nevertheless, the subspecies as here defined enjoys a certain degree of isolation, and the character is interesting as marking a reversal of the usual order, which calls for increase of size, especially bill, with increase of latitude.

Range of *X. a. gravirostris* (Wholly contained within California).—Resident in the mountains of southern California, the San Gabriels, the San Bernardinos, the San Jacintos, the Santa Rosas, and the Cuyamacas.

Authorities.—Morcom (*Xenopicus albolarvatus*), Bull. Ridgway Orn. Club, no. 2, 1887, p. 41 (Bear Valley, San Bernardino Mts.); *Grinnell*, Condor, vol. iv., 1902, p. 89 (orig. desc.; type locality, Sierra San Gabriel); *ibid.*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 62 (San Bernardino Mts.; habits, nest, etc.).

LEFT TO OURSELVES, we should be tempted to declare that this bird eschews protective coloration altogether; but Mrs. Bailey argues that black and white are not very conspicuous colors under our interior sun, and claims that the bird gains inattention by its very unbirdlikeness. And Dr. Merrill, who made a most satisfactory study of this species near Fort Klamath, in Oregon, regards the bird in winter as the very simulacrum of a broken branch, strongly shadowed, and crowned with snow.

This woodpecker is essentially a pine-loving species and is, therefore, nearly confined to the slopes of the Sierras and the Transition zones of the southern ranges. Only in winter does it appear at lower levels, and then rarely beyond the pale of the yellow pine. So close is this devotion of bird to tree that the woodpecker's feathers are almost always smeared with pine pitch; and I have found eggs dotted with pitch and soiled to blackness by contact with the sitting bird.

Pitch, however, is no chosen part of the White-headed Woodpecker's menu. The bird does not eat pine sap, as does *Sphyrapicus;* nor has it been found to depend upon any sort of seed or fruit. Wood-ants are

everywhere its favorite summer food; and concerning its winter provender Dr. Merrill speaks authoritatively:[1] "So far as I have observed, and during the winter I watched it carefully, its principal supply of food is obtained in the bark, most of the pines having a very rough bark, scaly and deeply fissured. The bird uses its bill as a crowbar, rather than as a hammer or chisel, prying off the successive scales and layers of bark in a very characteristic way. This explains the fact of its being such a quiet worker, and, as would be expected, it is most often seen near the base of the tree, where the bark is thickest and roughest. It must destroy immense numbers of *Scolytidæ*, whose larvæ tunnel the bark so extensively, and of other insects that crawl beneath the scales of bark for shelter during winter. I have several times imitated the work of this bird by prying off the successive layers of bark, and have been astonished at the great number of insects, and especially of spiders, so exposed. As a result of this, and of its habit of so searching for food, the White-headed Woodpeckers killed here were loaded with fat to a degree I have never seen equalled in any land bird, and scarcely surpassed by some Sandpipers in autumn."

The White-headed Woodpecker is a rather quiet bird both in manner and voice. I had been acquainted with the bird for years, and had even taken its eggs, without having once heard it utter a sound; but in the San Jacinto Mountains, in June, 1913, I heard a double or treble call-note, *chick-up* or *chick-it-up*, which reminded me somewhat of the Cabanis's cry. Mr. Stephens also reports (MS) a "drumming, or mating call, which was rendered in May on the broken limb of an oak. The blows were very rapid and the bird's head made a blur of motion for a second or so at a time, after which the drummer would pause and glance about to note the possible effect of his performance."

Although rather wary, this woodpecker knows how to save its face when taken by surprise. It neither endeavors to escape by dodging around a tree and fleeing behind cover, as do the Sapsuckers, nor to make off with an air of ostentatious offense, such as the Cabanis Woodpecker indulges on like occasions. No; the White-head is always decorous, self-contained, and above suspicion—save when his nest is discovered. Then, indeed, his nerves may go to pieces.

In the San Jacinto Mountains, where these White-heads outnumber all other Woodpeckers combined, our attention was drawn, on the 6th day of June, by a male who tittered anxiously as we stumbled along the rough trail. We camped on the prospect immediately, but it took a full hour to trace the "damage" to a hole fifty feet up in a yellow pine stub, which was three feet through at the base. It was the female who took,

[1] The Auk, Vol. V., 1888, p. 253.

at last, the fatal plunge into the nesting hole, and she was no sooner ensconced than the male appeared at the entrance and chuckled coaxingly. His mate reappeared upon the instant and resigned her place without parley. The male entered, remained a moment, came out again, squirmed consciously, tried to clear his throat, achieved some raucous remark about the state of the weather, then bravely dived into the hole again—*and stayed*. He flew when we were half way up the tree—those pine stubs often boast a bristling array of dead branches which are as easy to climb as a flight of stairs—and he shouted lustily as he went. His mate, however, had evidently gone far afield, and when she did return she took the situation very complacently.

We found a clean-cut round hole, one and a half inches in diameter, which gave admission to a cavity ten inches deep, and which had for its outer wall only the thick bark of the tree. Taking precaution for a possible future for the woodpecker family, we enlarged the entrance carefully and discovered two young birds, perhaps three days old, and a sterile egg. The youngsters were singularly long-geared and scrawny-looking individuals. Their eyes were still tight shut, but they were clamorous to a fault, and vigorous enough,—insomuch that they stood on tiptoe in the nest, by dint of steadying themselves against the walls.

It was the male parent again who first ventured back to inspect the nest with its patched-up entrance, while his mate remained timorously in the distance. Not till after a thousand feints and wrestlings with his fears did the bird finally thrust his head in at the entrance; and when he did so, he nearly turned a somersault backward in astonishment—at what, I do not know, unless it was to find the sterile egg gone. We really didn't need this bauble, for though it was polished like a pocket-piece, a single egg isn't much better than a chip for a souvenir. Besides that, its "interior redemption" presented something of a problem. Ancient eggs are some smelly. He could have had it for all of us. Not for fifteen minutes thereafter did that outrageous fowl return, yet there were those same little young ones clamoring all that time for their papa—not to mention their useless mother—and we were a hundred yards away. Talk about nerves! We left in disgust.

No. 195

Arctic Three-toed Woodpecker

A. O. U. No. 400. **Picoides arcticus** (Swainson).

Synonym.—Black-backed Three-toed Woodpecker.

Description.—*Adult male:* Upperparts glossy blue-black, duller on flight-feathers; primaries and outer secondaries with paired spots of white on edges of outer and inner webs; a squarish crown-patch of yellow (mustard-yellow, or light cadmium to orange); a transverse white cheek-stripe meeting fellow on forehead and cut off by black malar-stripe from white of throat and remaining underparts; sides and lining of wings heavily barred with black; three outer pairs of rectrices graduated, white on exposed (under) portions. Bill plumbeous slaty, the mandible lighter; feet and legs grayish dusky; iris reddish brown. *Adult female:* Like male, but without yellow crown-patch. *Young male:* Like adult male, but black of upperparts duller, white of underparts less pure, tinged more or less with dingy gray; barring of sides more blended; the yellow of crown-patch reduced, streaky. *Young female:* Like young male, but yellow of crown still further reduced, sometimes barely perceptible. Length of adult 209.6-254 (8.25-10.00); wing 129.5 (5.10); tail 77.9 (3.07); bill 33 (1.30); tarsus 23 (.905). Female slightly smaller.

Recognition Marks.—Towhee to robin size; yellow crown-patch of male and young; upperparts nearly solid black, as compared with *Dryobates* group; throat white, as compared with *Sphyrapicus* group.

Nesting.—*Nest:* According to Bendire, a hole in stump or stub, from 2½ to 8 feet above ground. *Eggs:* 4; glossy white. Av. size 24.4 x 18.3 (.96 x .72). *Season:* May 20–June 10; one brood.

General Range.—Northern North America, resident in the Canadian zone, from southern Alaska, southern Mackenzie, and southern Ungava, south to heavily wooded portions of the northern New England States, Michigan, etc., and in the West to the Black Hills, Wyoming, and the central Sierra Nevada of California; casually south in winter.

Distribution in California.—A rare and very local resident in the Boreal zone of the Sierra Nevada Mountains from Mt. Shasta south to the Tahoe region, and Big Trees, Calaveras County (Belding), and in the Warner Mountains.

Authorities.—**Cooper,** Orn. Calif., 1870, p. 384 (Sierra Nevada); *Bendire,* Life Hist. N. Am. Birds, vol. ii., 1895, p. 74; *Bangs,* Auk, vol. xvii., 1900, p. 131 (syst.; nomencl.); *McAtee,* U. S. Dept. Agric., Biol. Surv. Bull., no. 37, 1912, p. 25 (food).

BEYOND a perfunctory mention in bird-lists from the Tahoe region and isolated records from distant mountains, very little seems to be recorded in ornithological literature of the Arctic Three-toed Woodpecker as a resident of California. I have never seen the bird myself, though I have searched diligently for him in the Warner Mountains, on Shasta, and in various localities of the central southern Sierras. Those who speak familiarly (and vaguely), therefore, of this stranded Eskimo have my green-eyed regards.

Picoides arcticus is one of a boreal quintette, contemporaries of the Ice Age, whose survival in the mountains of sunny California gives to this State one of its most piquant charms. No other state, we are told, presented such a motley of human survivals as did California at the advent of the white man. And surely no other state of the American Union can present a gamut of bird life which runs from the tropical splendors of

Vermilion Flycatcher, Scott's Oriole, and Beautiful Bunting, to the frigid austerities of Gray Jay, Pine Grosbeak, Leucosticte, White-crowned Sparrow, and Arctic Woodpecker. And this reckoning takes no account of the astounding discovery of the Great Gray Owl as a breeding bird of the Yosemite sector! Verily, California is a microcosmos, an epitome of geography and history in three dimensions.

In default of more explicit information (which, ambitious reader, it is up to you to supply—there are still untrodden corners in the bird world), I copy *in toto* the ancient and meager account left by Dr. Cooper in the "Ornithology of California": "I found the bird quite numerous about Lake Tahoe, and the summits of the Sierra Nevada above six thousand feet altitude, in September, and it extends thence northward, chiefly on the east side of these and the Cascade Mountains, as I never saw it near the Lower Columbia. At the lake [i. e. Tahoe] they were quite fearless, coming close to the hotel, and industriously tapping the trees in the early morning and evening. In the North I found them very wild, probably because the Indians pursue them for their scalps, which they consider very valuable. I noticed their burrows in low pine-trees near the lake, where they had doubtless raised their young. According to Nuttall, they lay four or five white eggs. I have found them silent birds, though probably in the spring they have more variety of calls. The only note I heard was a shrill, harsh, rattling cry, sufficiently distinct from that of any other woodpecker."

No. 196

Red-naped Sapsucker

A. O. U. No. 402a. **Sphyrapicus varius nuchalis** Baird.

Description.—*Adult male:* Pileum, throat, and nuchal band spectrum-red (or scarlet-red to carmine); crown and throat-patches defined by black, narrowly on sides, broadly behind, the black border of throat below forming a conspicuous crescentic breast-plate; a white streak over and behind eye, more or less continuous with black-and-white mottling of upper back; a transverse stripe from nostril around throat and chest, and continuous with white of underparts; remaining upperparts black, variously spotted, banded, and blotched with white; middle coverts and upper tail-coverts nearly pure white, the first-named forming with the exposed edges of the greater coverts a broad white wing-band; inner webs of central pair of tail-feathers sharply black-and-white-barred; underparts, centrally, pure white or flushed with sulphur-yellow; sides, flanks, and under tail-coverts heavily barred or marked, chiefly in hastate pattern, with black. Bill and feet slaty; iris brown. *Fall and winter specimens* occasionally show a tendency to deepening of sulphur-yellow on underparts, and a tinge of the same in the spotting of upperparts. *Adult female:* Like male, but chin white, and red of throat reduced by invasion or intermixture of white; also a barely perceptible tendency

toward reduction of red in nuchal band (this red completely wanting in typical *varius*). *Young* (sexes alike ?): General pattern of adults on upperparts, but spotting pale sulphur-yellow; no red on nape, black instead; the crown blackish, more or less overlaid or suffused (or not) with dull red; underparts chiefly dingy sulphury brown, barred with blackish, most conspicuously on breast, colors blending on sides of throat, chin, and upper throat, dingy whitish, or progressively suffused with dingy red; middle of belly immaculate sulphur-yellow. Length 184.2-215.9 (7.25-8.50); wing 128 (5.04); tail 75 (2.95); bill 23 (.91); tarsus 20 (.79).

Recognition Marks.—Towhee size; highly variegated black, white, and red (and sometimes tinged with yellow below); red throat-patch defined by black (or white on chin in female) distinctive.

Nesting.— *Nest:* A gourd-shaped excavation in decaying wood of live aspen tree, 5-30 feet up; entrance 1½ inches wide; hole 8-10 inches deep; no lining. *Eggs:* 3 to 6; white, moderately glossed, ovate to elliptical ovate. Av. size 22.9 x 17 (.90 x .67). *Season:* June 1–15; one brood.

Range of *Sphyrapicus varius.*—Northern North America, breeding from near limit of trees south irregularly in mountainous and heavily timbered districts to North Carolina, Missouri, New Mexico, and California. South in winter to Central America.

Range of *S. v. nuchalis.*—Western North America. Breeding in Transition and Boreal zones from central British Columbia south to northeastern California, New Mexico and western Texas; wintering from southern California and southwestern Arizona to west central Mexico.

Distribution in California.—Common summer resident in the Warner Mountains. Common in winter in the valley of the Colorado River; also sparingly in the San Diegan district west at least to Santa Barbara, and casually elsewhere west of the Sierras.

Authorities.—Baird (*Sphyrapicus varius*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 103 (Ft. Yuma); *Shufeldt,* Auk, vol. v., 1888, p. 212, figs. (pterylosis); *Bendire,* Life Hist. N. Am. Birds, vol. ii., 1895, p. 88; *Grinnell,* Univ. Calif. Pub. Zool., vol. xii., 1914, p. 132 (Colo. Valley, winter); *ibid.*, Pac. Coast Avifauna, no. 11, 1915, p. 80 (Warner Mts., breeding).

THIS western variety of the well-known Yellow-bellied Sapsucker (*S. varius*) differs only slightly in appearance and habits from the eastern bird, and not at all in disposition. Of *varius* I have already said:[1]

"Before the maple sap has ceased running, our woods are invaded from the south by a small army of hungry Sapsuckers. The birds are rather unsuspicious, quiet, and sluggish in their movements. Their common note is a drawling and petulant *kee-a*, like that of a distant Hawk; but they use it rather to vent their feelings than to call their fellows, for although there may be twenty in a given grove, they are only chance associates and have no dealings one with another. Starting near the bottom of a tree, one goes hitching his way up the trunk, turns a lazy back-somersault to re-inspect some neglected crevice, or leaps out into the air to capture a passing insect. The bulk of this bird's food, however, at least

[1] Birds of Ohio, p. 350.

during the migration, is secured at the expense of the tree itself. The rough exterior bark layer, or cortex of, say, a maple, is stripped off, and then the bird drills a transverse series of oval or roughly rectangular holes through which the sap is soon flowing. The inner bark, or cambium, is eaten as removed and the sap is eagerly drunk. It is said also that in some cases the bird relies upon this sugar-bush to attract insects which it likes, and thus makes its little wells do triple service."

In lieu of maple sap the western bird makes heavy requisition on the fresh-flowing pitch of pine and fir trees. As for cambium, that of the aspen (*Populus tremuloides*) has marked preference, and the summer range of the bird, so far as it goes, is practically controlled by the occurrence of the tree. Inasmuch as this tree is short-lived and of slight economic importance, the depredations of the bark-eaters are not seriously felt.

The aspen, also, is the chosen nesting home of the Red-nape. On the bank of a northern river, the Pend d'Oreille, on the 28th of May, we found a nest some twenty-five feet up in an aspen tree sixteen inches in diameter. The tree was dead at the heart, but there was an outer shell of live wood two inches in thickness. The bird had penetrated this outer shell with a tunnel as round as an auger-hole, and an inch and a half in diameter, and had excavated in the soft heart-wood a chamber ten inches deep vertically, five and a half horizontally, and three from front to back. Here five eggs, as fresh as paint, reposed on the rotten chips. Like all, or most, woodpecker eggs these were beautifully transparent, with the position of the contained yolk clearly indicated. One egg was broken with a small round hole, as though a careless claw had been stuck into it.

The parent birds, especially the male, who was caught on the eggs, as though inspecting the latest achievement, were very attentive, flying back and forth in neighboring trees, and giving utterance to the *kee ah* and other notes.

In the Warner Mountains, where alone these birds summer within our borders, I heard a petulant *clew clew*, a double note, wherein the second member was an echo of the first. This reminded me of the *chow chow* of that amiable old pouter, the Red-bellied Woodpecker (*Centurus carolinus*) of the East, but would scarcely be conclusive as evidence of Centurine affinities.

In this same region I found the Red-napes nesting at forbidding heights in the fir stubs, but always near to some grove of "quaking asps." The young birds, which by the 8th of July were "hollering" loud enough to be heard from the ground, were evidently being fed on insects and

grubs. Few of us vegetarians succeed in enforcing our fad upon the rising generation—not, at least, till after they have risen.

The Red-naped Sapsuckers, for the most part, retire in winter to Mexico and Lower California, but there is a scattering fire of them over western and southern California, and they are of regular occurrence at that season in the Colorado River Valley, at least as far up as Needles. Dr. Grinnell found them subsisting chiefly upon the bark and sap of willow trees, but in one instance they had attacked a mesquite.

No. 197

Red-breasted Sapsucker

No. 197a Northern Red-breasted Sapsucker[1]

A. O. U. No. 403a. **Sphyrapicus ruber notkensis** (Suckow).

Description.—Similar to *S. r. ruber*, but slightly larger and coloration darker and brighter, the red of the foreparts, especially, richer, the white (or pale yellow) spotting of upperparts much less extensive, approaching that of *S. varius nuchalis*. Length 184.2-215.9 (7.25-8.50); wing 130 (5.12); tail 80 (3.15); bill 25.4 (1.00); tarsus 21 (.83).

Remarks.—*Sphyrapicus ruber* is, of course, derived from *Sphyrapicus varius* stock (or a common ancestor), and represents the obliteration of the highly developed head and breast pattern of *varius* by prevailing red. Although the ranges of the evolved forms now overlap considerably, we are inclined to regard intermediate examples, which are not wanting in our own borders and are more common to the north and east, as persistent or reminiscent examples of earlier intergradation (throughout an area now no longer definable), rather than "hybrids" in the interspecific sense. In such examples referable to *ruber*, the malar white stripe may be carried through to connect with the lower breast, and the included black "breast-plate" of *varius* may be clearly definable under the red.

The exaltation of *ruber* to the rank of a species is a deliberate defiance of the rule which would enjoin the assignment of subspecific rank to all forms known to intergrade. For in the case of *varius-ruber* the degree of difference between them has passed all normal or comparable bounds. We do violence to our traditions either way (it is the bird's fault for being so gaudy), yet the *ruber* fact is too glaring, too exceptional, to be embraced in the subspecific concept (however logically derived), and we choose to err on the side of common sense. *Summa jus summa injuria.*

Range of *S. r. notkensis*.—Humid Transition and Canadian forests of the Pacific Coast district from southern Oregon north to Skagway, Alaska, and east to the eastern slopes of the Cascade Mountains. "In winter south through northwestern California."

Distribution in California.—"Common winter visitant to the northern humid coast belt, east through the Siskiyou Mountains and south through the San Francisco

[1] The latest shift of the nomenclatural kaleidoscope makes it necessary, for once, to list a *sub*species ahead of "typicus". The "Sierra Red-breasted Sapsucker" was known as *S. ruber daggetti* at the time our accounts were written.

Bay region and Santa Cruz district, at least to Monterey" (Grinnell). Intergradation with *ruber* characterizes many California-taken specimens.

Authorities.—**Audubon** (*Picus ruber*), Orn. Biog., v., 1839, p. 179 (upper Calif.); *Grinnell*, Condor, vol. iii., 1901, p. 12 (orig. desc.; type locality, Pasadena); *ibid.*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 63, pls. 14, 15 (San Bernardino Mts.; habits, nest, distr.); *McAtee*, U. S. Dept. Agric., Biol. Surv. Bull., no. 37, 1912, p. 31 (food); *Pierce*, Condor, vol. xviii., 1916, p. 179 (San Bernardino Mts.; desc. nest).

IT IS all very well for the economic ornithologist to tell us that Sapsuckers are somewhat injurious to orchard trees, but the sight of one of these splendid creatures, dropping with a low cry to the base of a tree and hitching coquettishly up its length, is enough to disarm all resentment. From what spilled chalice of old Burgundy has the bird been sipping? Or from what baptism of blood has he lately escaped that he should be dyed red for half his length? Recrudescent mythology, ill at ease in these commercial times, nevertheless casts furtive glances at him, and longs to account in its inimitable way for the telltale color.

For myself, if young fruit trees will lure such beauty from the woods, I will turn orchardist. Nor will I begrudge the early sap from my choicest pippins. I am fond of cider myself, but there are worthier. Drink, pretty creature, drink!

Well, of course, there are biographical details; but what of it? Have you not yourself been so smitten with beauty that you forgot to inquire pedigree? Tut, now; you do not even remember a single sentence she said that day. But you remember *her*. Enough!

Once when the bird-man was camping on a Cascade trail, this crimson vision appeared at the edge of a clearing, and proceeded to inspect our plant approvingly; and while the bird-man's heart was in his mouth, it lit on the tent-post and gave it two or three inquiring raps. What need of details!

No. 197 Sierra Red-breasted Sapsucker

A. O. U. No. 403a. **Sphyrapicus ruber ruber** (Gmelin).

Synonyms.—Red-breasted Woodpecker. Sierra Sapsucker. Daggett's Sapsucker.

Description.—*Adult male:* Somewhat as in *S. varius nuchalis*, but distinctive markings of head and neck and chest nearly obliterated by all-prevailing carmine, which reaches well down on breast; marks alluded to persistent only in anterior portion of transverse (white) cheek-stripe and in black of lores; breast (posterior to carmine) and remaining underparts, except lining of wings, strongly suffused with yellow (pinard yellow); white spotting of upperparts greatly reduced, the residual marks on scapulars tinged with yellow; white wing-bar fully persistent, but sometimes yellow-tinged—thus an evolved form of *S. v. nuchalis*, with which males are said to exhibit every degree of gradation. *Adult female:* Like male, but plumage just perceptibly duller,

Wm. Brooke.

with a tendency toward white flecking on throat. *Young birds* are somewhat like adults above, but dingy blackish on head and breast and sides, with the anterior portion of head and the breast suffused with dull red; also traces of fine barring on breast. Length a little less than in preceding; wing 123 (4.85); tail 75 (2.95); bill 24 (.945); tarsus 20.5 (.81).

Recognition Marks.—Towhee size; rich carmine of head, shoulders, and forebreast distinctive; yellow underparts, lighter and duller than *notkensis*.

Nesting.—*Nest:* An unlined cavity in live or dead fir, or living deciduous tree, preferably aspen, at any height. *Eggs:* 5 to 7; white. Av. size 23.4 x 17.6 (.92 x .69). *Season:* May–June; one brood.

Range of *Sphyrapicus ruber*.—The Pacific Coast region broadly; breeding from Alaska to southern California and east to the eastern slopes of the Sierra-Cascades; wintering south to Cape San Lucas.

Range of *S. r. ruber*.—The Californias; breeding in the Transition zone of the Trinity Mountains and the inner northern coast ranges, Mt. Shasta, the Warner Mountains, sparingly, and south along both slopes of the Sierras to the San Bernardino and San Jacinto Mountains; wintering extensively in the San Diegan district and throughout Lower California; less commonly in the valleys and foothills west of the Sierras.

Authorities.—Vigors (*Picus ruber*), Zool. Voy. "Blossom," 1839, p. 23 (Monterey); *Anderson and Grinnell*, Proc. Acad. Nat. Sci. Phila., 1903, p. 8 (Siskiyou Mts.; crit.); *Swarth*, Univ. Calif. Pub. Zool., vol. x., 1912, p. 34 (habits, hist., nomencl., crit.).

IN THE PRECEDING sketch we followed the promptings of our heart and made apology for this naughty little beauty who has been playing hob with our trees. But we foresee that in this account we shall have to review the evidence and invite such lenient judgment as becomes a jury of Californian millionaires (present and prospective). The Red-breasted Sapsucker does puncture trees and drink sap both in summer and in winter. In summer it attacks in this fashion not only pine, fir, aspen, alder, cottonwood and willow trees, but such orchard trees, as apple, pear, prune and the like, as may lie within Transition areas. In winter at lower levels it gives attention to evergreen trees, white birch, mountain ash, peach, plum, apricot, English walnut, elder, and pepper trees. That sounds portentous, and it would be if the birds were as indiscriminate and wasteful in their methods as are jack rabbits and pocket gophers, for example. But the Sapsuckers are curiously restrained by habit. Instead of gleaning at random, as we might expect, the Sapsucker makes careful selection, like a prudent forester, of a single tree, and confines his attentions henceforth, even though it be through succeeding seasons, to that one tree. Starting well toward the top of an evergreen, or well up on the major branches of an orchard tree, the bird works successively downward in perpendicular rows, whose borings are sometimes confluent. In this way the bird secures an ever-fresh flow of sap, from below. If carried on too extensively, or persisted in for successive

seasons, these operations will sometimes cause a tree to bleed fatally, or at least to fall easy victim to insect pests. I have myself seen limbs of mountain ash trees, pear trees, and English walnut, done to death in this fashion. Yet it is only fair to say that but one or two trees in an orchard may be attacked, and that there is scarcely more danger of the trouble spreading than there would be from successive strokes of lightning.

That this same moderation is shown in the bird's native haunts is testified to by Dr. Grinnell in his San Bernardino report: "Near Bluff Lake a species of willow (*Salix bigelovii*) grows in good-sized clumps around the numerous cienagas, and these willows seem to offer especial attraction to the sapsuckers. But, curiously enough, the attentions of the birds are confined to a single clump in a locality and not distributed among many. * * * This single willow clump, among dozens of other unaffected ones at the end of the cienaga, was rendered conspicuous by all of its upper branches and stalks, above two to four feet from the ground, being dead, with the bark weathered off and the stems left bare and shining. This clump must have been worked upon for at least three years; for on several of the trunks, which were from three to five inches in diameter, there were three zones of borings, the latest one lowest. Just below each of these girdlings was a ring of sprouts."

For the rest, *Sphyrapicus ruber* is a large consumer of ants, and does some good in the destruction of leaf-eating beetles. Berries of the pepper trees (*Schinus molle*) are eaten to some extent, in winter, as are also, regrettably, seeds of the poison oak.

There! the sordid business is over, of discussing a brother's faults. We will hie us back to the consideration of the bird itself, *Das huebsche Ding an sich*. We shall not hear their cry unless we are rude enough to threaten their nest. Then, it may be, we shall hear a petulant *kee a*, like that of *S. varius*, or, more rarely, a high, strong *quee oo*, which will remind us of the Red-headed Woodpecker (*Melanerpes erythrocephalus*). *S. ruber* has, however, a much more satisfactory way—to him—of publishing his presence. Perching on the tip of some resonant, dry limb, he beats tattoo by the hour, and mocks, or challenges thereby, half a dozen neighbors. The rhythm of this tattoo is doubtless of significance to the initiate. At least it is characteristic of the species. I give two such *Ruber* codes for what they are worth: - -′ - - - -, - -′ - - - -, - -′ - - - -, - - - - - - -; and again, – - - - - – - - - - – - - - - - – – - - - - – –.

Major Bendire was one of the warmest friends this Sapsucker ever had; and a paragraph from his essay[1] is *de rigueur:*

[1] Appearing first in "The Auk," Vol. V., July, 1888 (p. 231), and later in "Life Histories," Vol. I., p. 94.

"These birds are not at all shy during the breeding season, allowing you to approach them closely; but they have an extraordinarily keen sense of hearing. I frequently tried to sneak up to a tree close to my house which I knew had been selected by a pair of these birds, to watch them at work, but I was invariably detected by the bird, no matter how carefully I tried to creep up, before I was able to get within 30 yards, even when she was at work on the inside of the cavity and could not possibly see me. The bird would cease working at once, her head would pop out of the hole for an instant, and the surroundings be surveyed carefully. If I kept out of sight and perfectly still, she would probably begin working again a few minutes afterwards, but if I moved ever so little, even without making the least noise, in my own estimation, she would notice it and stop working again at once. If the tree were approached too closely, she would fly off, uttering at the same time a note resembling the word 'jay,' or 'chae,' several times repeated, which would invariably bring the male around also, who had in the meantime kept himself busy in some other tree, either drumming or hunting for food. While the female was at work on the inside of the excavation, the male would fly to the entrance, from time to time, and look in, probably asking his mate how her work was coming on, how soon they might begin housekeeping, etc.; and at other times he would hang, for five or ten minutes even, just below the entrance to the burrow, in a dreamy sort of study, perfectly motionless and seemingly dazed, evidently thinking of the family responsibilities that were soon to come."

"Family responsibilities" (or at least oölogical opportunities) transpire about the last week in May or the first in June. Aspen trees are again leading candidates for favor; and by far the easiest way to make nest locations is to look about at the foot of the trees for fresh chips. From these we learn that the birds require a fresh domicile each season. After the nest is roughed out, the interior surface is carefully smoothed off, and the chippings, no more pretentious than sawdust, are allowed to fall into the bottom of the cavity to provide a soft cushion for the eggs. Incubation lasts from twelve to fourteen days, and the male bird does his full share of the work. A tell-tale spot, moreover—a rounded, polished area, about the size of a dollar, appearing on the trunk of the host tree some four inches below the nesting hole—shows where a bird's tail-feathers are wont to rest, and supports the idea that the male Sapsucker loiters about on the doorstep a good deal, chinning with his spouse.

This Sapsucker's eggs, five, six, or even seven in number, are remarkable among woodpeckers' eggs not alone for their transparency—the outlines of the yolks are plainly visible from the outside in fresh eggs—but for the varying texture of their shells,—an effect as of water-marked

linen paper, in heavy, branching lines, and coarse, frost-work pattern.

Baby Sapsuckers are very clamorous in their dark nurseries—setting at naught the familiar adage that little children should be seen and not heard. Even after they have escaped from prison, they clamber about the nesting tree for some days before attempting flight. Woodpeckers of all sorts are very devoted parents; and the youngsters require careful initiation into the mysteries of bug-catching, sap-sucking, and bark-chewing. One can see readily enough how the birdies would take to sap, but the relish for "cambium," the green stuff of bark, must be an acquired taste, like that for olives.

Sapsuckers are more extensively migratory than any other woodpeckers, save *Colaptes*, but *ruber*'s migrations are chiefly altitudinal. Retirement from the untenable heights is quite irregular, and dependent upon weather conditions. The winter distribution, also, appears somewhat irregular and haphazard. The bird is very quiet and rather stolid in winter, as becomes a bird of high feather. It is, however, quite as likely to be seen in a city park or on a shaded avenue as in a foothill forest; and if its presence occasionally offends the exceptional horticulturist, the bird, at least, suffers from no sense of guilt.

No. 198

Williamson's Sapsucker

A. O. U. No. 404. **Sphyrapicus thyroideus** (Cassin).

Synonyms.—Williamson's Woodpecker. Red-throated Woodpecker (male). Brown-headed Woodpecker (female). Black-breasted Woodpecker.

Description.—*Adult male:* In general, glossy black changing to dull black or dusky on wings; throat, narrowly, scarlet-red; belly bright yellow (lemon or strontian); sides, flanks, lining of wings, and under tail-coverts more or less mingled with white (black-and-white barred, or marked with black on white ground); a broad oblique patch on wing-coverts and upper tail-coverts, white; a few small, more or less paired, white spots on wing-quills; a white post-ocular stripe, connecting or not with a faintly indicated cervical collar; and a white transverse stripe from extreme forehead passing below eye to side of neck. Bill black or slaty; feet greenish gray with black nails; iris dark brown. *Adult female:* Very different. In general, closely barred black-and-white, or black-and-brownish; only breast pure black, in variable extent; whole head nearly uniform hair-brown, but showing traces of irrupting black; post-ocular stripe of male faintly indicated, and occasionally with touch of red on throat; some intermediate rectrices black, but exposed surfaces of central and outer tail-feathers black-and-white barred; white spots of wing-quills larger, paired, and changing to bars on inner quills; belly yellow and upper tail-coverts white, as in male. *Young*

male: Like adult male, but black not glossy; belly paler; throat white. *Young female:* Like adult female, but barring carried across head, neck, throat, and breast. Length of adult 203.2-228.6 (8.00-9.00); wing 136 (5.36); tail 84 (3.31); bill 25.4 (1.00); tarsus 21.5 (.83).

Recognition Marks.—Towhee size; fine barring of female, with brown head, distinctive; extensive black of male with white head-stripes, white rump (upper tail-coverts), and white wing-bars; pattern of underparts (in male) clearly a modification of that of *S. v. nuchalis*, but red of throat much reduced and black much extended.

Nesting.—*Nest:* A hole excavated by the birds, at any height in half-dead coniferous tree, or rarely, in California, aspen. *Eggs:* 3 to 7, usually 4; pure white. Av. size 24.2 x 17.2 (.95 x .68). *Season:* May–June; one brood.

General Range.—Transition and Boreal mountain forests of western North America; breeding from central British Columbia and Montana south to southern California, central Arizona, and central New Mexico; wintering from the southern tier of western states south to Jalisco.

Distribution in California.—Summer resident of high Transition and Boreal zones of the Warner Mountains, the Sierras, the San Bernardinos, and less commonly the San Jacintos. In winter descending to somewhat lower levels and wandering westward sparingly to interior coastal ranges.

Authorities.—**Cassin** (*Picus thyroideus*), Proc. Acad. Nat. Sci. Phila., v., 1851, p. 349 (orig. desc.; Calif.); *Henshaw*, Am. Nat., vol. viii., 1874, p. 242; *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 97; *Grinnell*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 64 (San Bernardino Mts.); *McAtee*, U. S. Dept. Agric., Biol. Surv. Bull., no. 37, 1912, p. 32 (food); *Swarth*, Condor, vol. xix., 1917, p. 62 (syst.; nomencl.; crit.).

IN THE LIGHT of after knowledge, it is always amusing to recall the gropings of the pioneers in the search for truth. The case of the Williamson Sapsucker, however, was exceptionally puzzling. Here nature had deliberately set a trap for the unwary, and it is small wonder that the pioneers meekly fell into it. Whereas the two sexes of most woodpeckers are very much alike, Lord and Lady *Thyroideus* are almost absolutely unlike, only a tinge of yellow, common to most sapsuckers, serving to hint at any relationship. Cassin describes the female first in 1851, from a California specimen, as *Picus thyroideus;* and she was known for some years as the Brown-headed or Round-headed Woodpecker. Wherefore, Baird, in the "Ornithology of California" (1870) gravely tells us: "No red on top of head, but the chin and throat tinged with this color in adult males"; and "Female with rather duller colors." Dr. Newberry, in 1857, described the handsome black-and-white-and-yellow male as *Picus williamsonii*, and Baird's comment is, "Female with the chin white instead of red(?)." In 1872, Dr. Henshaw, studying the birds near Garland, Colorado, discovered a black male "*williamsonii*" and a brown female *thyroideus* waiting upon the same brood of newly hatched young, and so set us straight upon this strange alliance.[1]

[1] Explorations and Surveys west of the 100th Meridian. Rep. on Orn. Spec. Coll. in years 1871, 1872 and 1873 (1874), p. 92.

The Williamson Sapsucker

Williamson Sapsuckers occur chiefly in pine timber at the middle and upper levels of our higher ranges. They are especially common in the east central Sierras; and although they occupy the same general territory, they shun the quaking asp and other deciduous trees, which are the special province of the Red-breasted Sapsuckers. Except for a rolling call, a rhythmical drumming on wood, which is like a call to arms in the quiet forests, the Williamson Sapsuckers are rather silent birds. Food, which consists chiefly of ants with a little sauce of flying insects and a flavor of sap, is easily obtained. Hence, the birds do not wander far, nor make themselves very conspicuous.

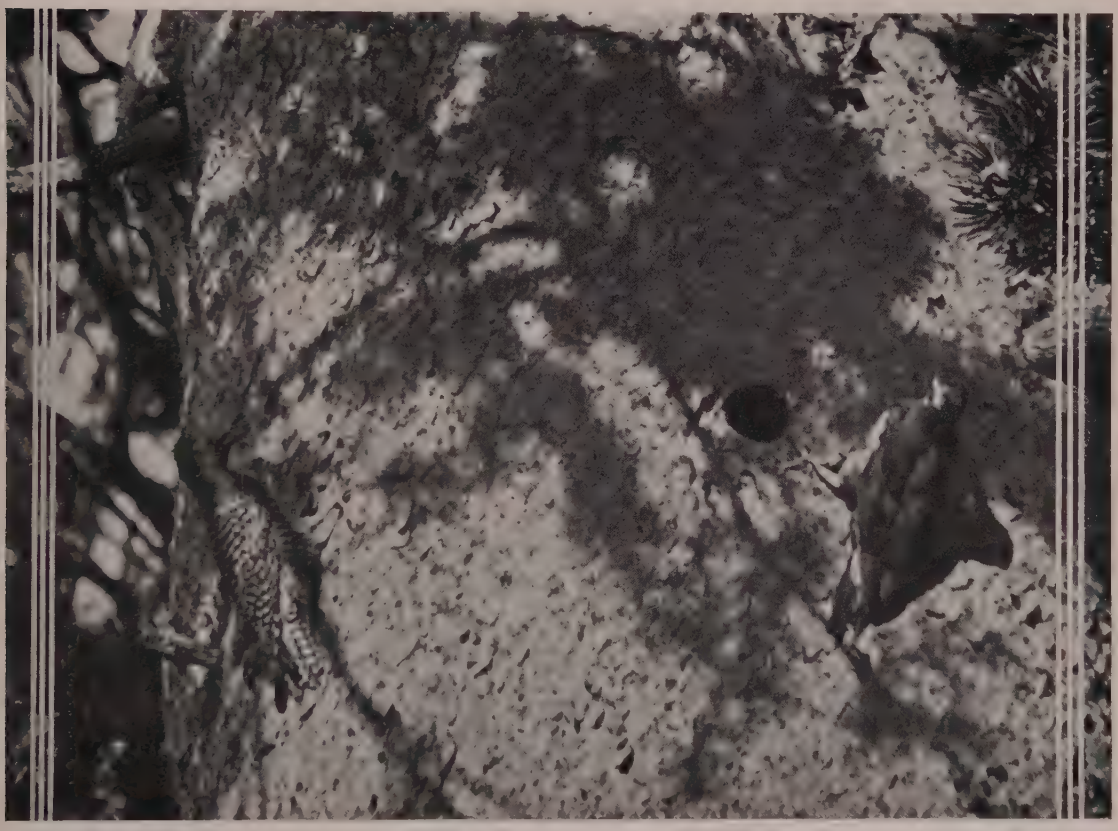
While bird-nesting in the service of the M. C. O. in the summer of 1919, I sighted a female of this species, the rather reluctant subject of one of the accompanying illustrations, in a small pine-clad valley near Lake Mary, one of the "Mammoth" group in southern Mono County. We followed her course for some minutes as she sucked sap, first from one pine sapling, then from another; finally she caught a fly midair with a swift fillip, then beat a straight course across the valley and was lost

Taken in Mono County

Photo by the Author

A TYPICAL NESTING SITE
PINE WITH DEAD TOP NEAR CENTER

behind a grove of pines. We followed and found a pine, broken-topped but still alive, and riddled with holes. The bird fled guiltily from a spot about fifteen feet up, and as we drew near we heard a depressing uproar of infantile squawking. The male, however, a resplendent fellow, who presently appeared bearing a beakful of big black ants, fed without apology or circumspection, as we stood at the base of the tree. This boldness of a brightly plumaged male is so at variance with established usage, that I venture to quote a page, tedious enough in itself, just as torn from



Taken in Mono County *Photo by the Author*

LORD AND LADY THYROIDEUS
THE LADY IS AT THE LEFT

my field note-book: "Williamson Sapsucker, Mammoth Lakes, Calif., June 19, 1919. Visited nesting site found on the 16th. Male fed young at 5:25 p. m. Both male and female came at 5:30. Male fed, but female loitered about with her beak full, afraid to enter nesting hole. Male returned at 5:40 and fed. Female finally screwed up her courage to feed

her youngsters at 5:53, after 23 minutes of scolding. Flew away and returned after 3 minutes, entered hole after 7 minutes of scolding and hopped about. Female returned again in 5 minutes, was scared away by noise of shutter, but returned after about a minute, and soon entered hole. Male came at 6:13, was slightly alarmed by noise of shutter when at hole, but fed a minute later. At the same minute female came, but had not entered when male made another visit within a minute and entered at once. Male came again at 6:20, fed at once, and flew away. Female flew away and back, and away again without feeding. Male returned and fed again at 6:24. Female came back at 6:26, but did not feed again while we stayed."

One soon comes to recognize the rigid requirements of the Williamson Sapsucker in the matter of nesting sites. Given a pine which is beginning to die at the top, usually in a fairly sheltered situation, and a pair of birds will adopt it for a permanent home. They will occupy it from year to year, or perhaps the year around, nesting twice in a season; and a long occupation is evinced by a trunk riddled with holes at all levels. One such "family tree," closely examined, had 38 holes, apparently complete and fit for habitation or incubation. At the time of our visit, on June 19th, the male was industriously drilling a new excavation at a height of 45 feet, and from much amorous talk in which *he* affirmed that the state of his affection was *clear, clear*, and *she* declared that it was *queer, queer*, we knew that a bridal chamber was intended.

No. 199

Western Pileated Woodpecker

A. O. U. No. 405a. **Phlœotomus pileatus picinus** Bangs.

Synonyms.—Logcock. Cock-of-the-Woods. Black Woodcock.

Description.—*Adult male:* General plumage sooty black, lusterless save on wings and back; whole top of head and crest of lengthened occipital feathers bright red (spectrum red to nopal red); a red malar-stripe changing to black behind, and separating white spaces; chin and upper throat white, the latter usually streaked or more or less suffused with gray; also a white stripe extending from nostrils and below eye to nape, and produced downward and backward to shoulder; a narrow white stripe over and behind eye; lining and edge of wing, and a large spot (nearly concealed) at base of primaries, white; black feathers of sides sparingly white-edged (the white disappearing by abrasion in spring). Bill dark plumbeous above, lighter below, save at tip; feet black. In some specimens the whites are everywhere tinged with sulphur-yellow, the color being especially noticeable in the axillaries and lining of wings. *Adult female:* Similar, but red of head restricted to hind crown and occiput, the deserted areas black. Length of adult male 406.4-457.2 (16.00-18.00); wing 237 (9.33); tail 157 (6.18); head from tip of bill to end of crest 114.3-139.7 (4.50-5.50); bill 54.4 (2.14); tarsus 34.4 (1.35). Female smaller.

The Western Pileated Woodpecker

Recognition Marks.—Crow size, largest of western woodpeckers; black, white, and red on head; body mainly black.

Nesting.—*Nest:* A cavity with entrance hole 3 to 3½ inches in diameter, high in dead tree. *Eggs:* 3-5, 6 of record; white. Av. size 32.5 x 24.1 (1.28 x .95). *Season:* c. May 1st; one brood.

Range of *Phlœotomus pileatus.*—Wooded portions of North America.

Range of *P. p. picinus.*—"Northwest coast district, from British Columbia to northern California, east to Idaho and northwestern Montana, and south to southern Sierra Nevada" (Ridgway).

Distribution in California.—Locally resident in heavily timbered sections in the Transition zone of the inner ranges of northwestern California south at least to Cazadero, and in the Sierras from Shasta to the Kings River region.

Authorities.—Bridges (*Dryocopus pileatus*), Proc. Zool. Soc. London, 1858, p. 2 (Trinity Co. and Sierra Nevada); *Fisher*, N. Am. Fauna, no. 7, 1893, p. 49 (localities in s. Sierra Nevada); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 102, pl. i., fig. 5 (egg); *Carriger and Wells*, Condor, vol. xxi., 1919, p. 153, fig. (Placer Co.; desc., habits, nests, eggs).

ONE'S first acquaintance with this huge black fowl marks a red-letter day in woodcraft, and it is permitted the serious student to examine the bird anatomically just once in a lifetime. The scarlet crest attracts first attention, not only because of its brilliancy, but because its presence counterbalances the bill, and imparts to the head its hammer-like aspect. This crest was much sought after by the Indians of our coast, and figured prominently as a personal decoration in their medicine dances, as did the bird itself in their medicine lore. A measurement of twenty-eight inches from wing-tip to wing-tip marks the size of this "Black Woodcock," while the stiffened tail-feathers with their down-turned vanes show what adequate support is given the clinging claws when the bird delivers one of its powerful strokes. The bill is the marvel. Made, apparently, of horn, like other birds' bills, it has some of the attributes of tempered steel. The bird uses it recklessly as both ax and crowbar, for it hews its way through the bark of our largest dead fir trees, in its efforts to get at the grubs, which have their greatest field of activity between the bark and the wood. It pries off great chips and flakes by a sidewise wrench of its head. A carpenter is known by his chips, but no carpenter would put his chisels to such hard service as the bird does his. As a result there is no mistaking the bark pile which surrounds the base of certain old stubs in the forest for the work of any other agency.

Possibly the most interesting of all is the Log-cock's tongue, which it is able to protrude suddenly to a distance of four or five inches beyond the tip of its beak. This provision enables the bird to economize labor in the tracking of buried sweets, and the arrangement is made possible by the great development of the hyoid bones with their muscular attach-

Taken in the Yosemite *Photo by the Author*

ON THE BANKS OF THE MERCED

SEVERAL PAIRS OF PILEATED WOODPECKERS NEST BETWEEN THE OBSERVER AND HALF DOME

ments. These extend backward from the base of the tongue over and around the skull, nearly to the upper base of the bird's bill again.

The great forest fires which have ravaged portions of our State have proved a godsend to the woodpeckers, although they are in no way responsible for them. The Pileated Woodpecker does his share in staying the ravages of the wood-working insects, but he is even more interested in the spoliation of fallen logs, and so hastens rather than retards decay. A pair of these Woodpeckers will gradually tear a rotten log quite to pieces in pursuit of the grubs and wood-boring ants which it harbors. They are shy or confiding just in proportion to the amount of persecution which they have been called upon to endure. I have waited half a day trying to get a specimen, and again I have sat under a shower of chips or ogled a busy pair in the open at forty feet.

The Log-cock has a variety of notes, and one who learns them will find the bird much more common than he may have supposed. The most noteworthy of these is a high-pitched stentorian call, which is not exactly laughter, although something like it in form, *hü ha ha*

ha ha ha ha ha hü. "At a distance this call sounds metallic; but when at close range it is sent echoing through the forest, it is full and clear, and it is the most untamably wild sound among bird notes."

The Pileated Woodpecker chisels out its nesting hole at any height in dead timber, whether of fir, pine, or incense cedar. It nests regularly in this State, but the taking of its eggs is something of a feat; so, in default of much-coveted "luck," we fall back on Bendire: "From three to five eggs are usually laid to a set, but I have seen it stated that the Pileated Woodpecker often laid six, and that a nest found near Farmville, Virginia, contained eight. An egg is deposited daily, and incubation begins occasionally before the set is completed, and lasts about eighteen days, both sexes assisting in the duty, as well as in caring for the young. Like all Woodpeckers, the Pileated are very devoted parents, and the young follow them for some weeks after leaving the nest, until fully capable of caring for themselves. Only one brood is raised in a season. The eggs of the Pileated Woodpecker are pure china-white in color, mostly ovate in shape; the shell is exceedingly fine-grained and very glossy, as if enameled."

The gravest crime of which a child of nature can possibly be guilty is to grow larger than the common run of its kind. Capital punishment is the invariable penalty we mete out in such cases; and for this reason, principally, this wild-hearted chieftain of the woods has been nearly exterminated in the more settled parts of America. In the old South the very name "Woodcock," which although absurdly inaccurate still sounds sapid, has hastened the doom of an inoffensive bird. Under this foolish misnomer the carcasses of Pileated Woodpeckers were, until lately, offered in open market in the City of Washington. But it is difficult to conceive how even darkies could ever have relished them as food. Captain Bendire tried one once when he was short of rations, up in Oregon, and he has left eloquent testimony to the bird's non-edibility. Fricassee of Woodpecker! Ugh!

No. 200

California Woodpecker

A. O. U. No. 407a. **Balanosphyra formicivorus bairdi** Ridgway.

Description.—*Adult male:* Nasal tufts continuous with chin and upper throat black; forehead, connecting narrowly with sides of throat and lower throat, white, the lower throat, centrally, tinged with light greenish yellow; crown and nape spectrum red; rump and upper tail-coverts white; sides of head, breast, and remaining upperparts, including tail, shining black with bluish or greenish reflections; wings changing to dull

black and brownish black on tips of quills; edge of wing white,—a large white patch, nearly concealed, involving base of primaries and inner edges of secondaries; remaining underparts white; the lower breast below the black patch, the sides, flanks, lining of wings, and crissum, sharply and heavily streaked or striped with black. Bill and feet black; iris highly variable,—white, yellow, brownish, or even bluish or pinkish. *Adult female:* Like male, but red restricted to hind crown and nape, in so far replaced by shining black. *Young birds* are duller, but exhibit the characteristic pattern of adult. Birds in any plumage are likely to exhibit touches of red on the black of upper breast or the yellow of lower throat. Length (sexes about equal sized): 215.9-254 (8.50-10.00), averaging about 228.6 (9.00); wing 143.3 (5.65); tail 80 (3.15); bill 29 (1.14); tarsus 22 (.866).

Recognition Marks.—Robin size; black, white, red, and yellow of head; black breast continuous with back. The only bird this could possibly be confused with is the male Williamson Sapsucker, which has a yellow belly with red on throat, but not on crown or nape.

Nesting.— *Nest:* A hole in live or dead portion of white oak or live-oak, sycamore, or other tree. *Eggs:* 4 or 5 (17 of record!); white, scarcely glossy. Av. size 25.4 x 19 (1.00 x .75). *Season:* April–June 10; one brood.

Range of *Balanosphyra formicivorus.*—Pacific Coast and southwestern border of the United States from western Oregon and western Texas to Colombia.

Range of *B. f. bairdi.*—Resident in Upper Sonoran and lower Transition zones of the Pacific slope from northwestern Oregon to northern Lower California.

Distribution in California.—Common resident in timbered sections west of the Sierras, locally abundant in oak timber, and in lightly wooded valleys. Recorded casually (?) from Carroll Creek on the eastern flanks of the Sierras (Grinnell). Not found on the islands.

Authorities.—Vigors (*Picus formicivorus*), Zool. Voy. "Blossom," 1839, p. 23 (Monterey); *Ridgway*, Bull. U. S. Nat. Mus., no. 21, 1881, pp. 34, 35 (orig. desc.; type locality, Petaluma, Sonoma Co.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 112, part; *McAtee*, U. S. Dept. Agric., Biol. Surv. Bull., no. 37, 1912, p. 43 (food); *Ritter*, Condor, vol. xxiii., 1921, p. 3, figs. (acorn storing); *ibid.*, vol. xxiv., pp. 109-122, (important summary); *Henshaw*, Condor, vol. xxiii., 1921, p. 109, figs. (acorn storing); *Gignoux*, Condor, vol. xxiii., 1921, p. 118, fig. (almond storing).

JACOB, Jacob, Jacob, shouts a jeering, raucous voice on the campus of one of our two greatest universities. The conscious freshman, newly arrived in the West, turns him around to get a view of his tormentor. There is no one near, apparently; but from the oak tree overhead comes again that mocking cry—*Jacob, Jacob.* Ah! it is no sophomore, bent on hazing, but a California Woodpecker greeting one of his own kind. The other bird has just brought another acorn to ornament the fretwork in the giant live-oak which rears itself in front of President Jordan's residence, and there is much animated discussion as to its placing. *Kerack Kerack,* "Where shall I put it?" asks the acorn-bearer. *Chaar chaar tchurrup,* replies the sexton, who has just completed a neat round excavation in the heavy bark of a large oak bough. In goes the acorn, pointed end down, and *whack, whack* goes the sexton's spade, till the

acorn is driven in so firmly that nothing short of a pick-ax or decay will loosen it.

The freshman may be late to class, but he is witnessing one of the strangest as well as most characteristic spectacles in California's varied pageant. The bird itself is worth more than a passing glance. True native son is *Balanosphyra*, handsome, saucy, debonaire, as faultless in dress as a Spanish fandanguero, as independent in speech as a Kearney Street sand-lotter, as lofty and preoccupied in manner as a Junior "frat," and as industrious, withal, as a heathen Chinee. The Woodpecker is our native aristocrat. He is unruffled by the operations of the human plebs in whatever disguise. Digger Indians, Don Joses, or Doctors of Philosophy are all the same to him. Wigwams, haciendas, or university halls, what matter such frivolities, if only one may go calmly on with the main business of life, which is indubitably the hoarding of acorns.

Taken in the San Jacinto Mts. *Photo by the Author*

A SCULPTURED SHAFT

The California Woodpecker is preëminently a sociable bird,—sociable and clannish. Other woodpeckers tend to become solitary, the larvæ-hunting species especially so, because of the comparative scarcity of their prey. But the California Woodpecker is chiefly dependent upon mast, and this, if not unfailing, is at least abundant when it is to be had at all. Now abundance of food begets gregariousness, of which the

mast-eating pigeon, the extinct Passenger Pigeon of the East, was the extreme example. Abundance with variability has produced gregarious but sporadic, or roving, species, as in the case of our own Band-tailed Pigeon (*Columba fasciata*) and the Crossbills (*Loxia curvirostra* and *leucoptera*). The California Woodpecker is not only gregarious but social, having, by coöperation in hoarding, solved the question of a variable food supply.

But before we go into that, let us note how well the birds get along among themselves. Bickering and minor differences of opinion there may be, for *Balanosphyra* is an active, noisy bird; but it is astonishing how well they do agree together upon the whole, insomuch that half a dozen Woodpeckers may be found working silently upon the same tree. In defense of the common preserves, also, they show a great unanimity of action, combining to drive off marauding Jays and Magpies. This coöperative larder-keeping has in time reacted upon this Woodpecker's character, making the species self-contained and self-sufficient to an unusual degree. They are neither wary nor friendly, and, except where persecuted, will go on about their business in total disregard of human comings and goings. Thus, an acorn-ridden oak spans the entrance driveway of a fashionable hotel near Santa Barbara. Automobiles and carriages come and go at all hours, yet at any moment in the year from one to a dozen Woodpeckers may be seen on that tree.

The patchy coloring of the head gives this bird an uncanny look, an effect which is heightened by the white or variably light coloration of the iris. A "china" or "glass" eye does not ordinarily promote one's confidence in a horse, and most of us prefer that our human friends should have the windows of their souls appropriately colored and not too transparent. But however we may quarrel as to matters of taste, we shall agree that the California Woodpecker's eye is bright enough for bug-catching. Our Woodpecker is abstemious as to meat, but active and far-sighted in the pursuit of it. Much time is spent on lookout on the bare tips of elevated stubs or on telephone poles. Frequent sallies are made in midair, chiefly insectivorous, but partly, one suspects, from sheer exuberance of spirits. A most characteristic flight-movement is an exaggerated fluttering wherein progress is at a minimum and exercise at a maximum. In this way, also, they ascend at acute angles, sometimes almost vertically. With this movement alternates much sailing with outspread wings, and certain tragic pauses wherein the wings are quite folded. It is in such a movement of the folded-wing position, apparently, that the Woodpecker may make critical inspection of anything before him, for at other times his downward vision is obscured by the motion of his own wings.

The name *formicivorus*, ant-eating, is a thorough misnomer for this bird. In common with all other woodpeckers it does eat ants, but these form only eight per cent of its food, as against fifty per cent for the Flicker (*Colaptes cafer*), and eighty-five per cent for the Williamson Sapsucker (*Sphyrapicus thyroideus*). This species does not secure much, if any, of its food by drilling, and it does not go after the Cerambycid larvæ at all. In addition to bugs, flies, and miscellaneous hymenoptera, taken a-wing, it appropriates a caterpillar or a beetle or an olive scale now and then, or lies in wait to pick up ants as they emerge from their xylophagous tunnellings. A regrettable taste for fruit is occasionally cultivated, but this has not reached economic proportions, save in the case of almonds. Almond orchards thrive best at a very considerable distance from oak groves—otherwise, the "lead us not into temptation" petition were a vain thing (or shall we pray, "forgive us our debts as we forgive our debtors," and then seduce the birds?)

aken in the San Jacinto Mts. *Photo by W. M. Pierce*

A THOROUGH JOB

Now, having conscientiously despatched all other matters, we pause to remark, what is perfectly well known to every Californian, that the California Woodpecker is the original artist in inlaid bindings. From time immemorial this bird has riddled the bark of certain forest trees and stuffed the

holes with acorns. Speculation is still rife as to the cause or occasion or necessity or purpose of this strange practice, but the fact is indisputable and the evidence of it widely diffused. *Balanosphyra formicivorus bairdi* has taken it for his life work to enshrine all the acorns, one by one, in appropriate wooden niches, so long as life shall last. This is his bounden duty, his meat and drink, his religion, and his destiny.

What he accomplishes the photographs show well enough,—the close, methodical studding of bark or wood of any kind with acorns, chiefly those of live-oaks, over immense areas. The cultures, once started, are wrought upon continuously year by year, as material avails or the colony flourishes. Live-oaks themselves are the commonest hosts, together with the white, or post, oak, and the black oak of the southern counties. After these come sycamore and yellow pine or, more rarely, eucalyptus. Telegraph and telephone poles, gables, cornices, and, in fact, any wooden structure where they are permitted to work, if near the source of acorn supply, may come in for ornamentation. On a small square-sawed telephone pole near Marysville I found sixty acorns (and pecans purloined from a neighboring orchard) imbedded in a space five inches wide and two feet long. At that rate the pole carried some 1500 of these tiny storehouses.

In Tecolote Canyon, west of Santa Barbara, there is a giant sycamore which I count one of the handsomest examples of Carpintero's workmanship,—an unbroken shaft, at least forty feet high and three feet across the inlaid face, covered with a "solid" mass of acorns totalling, say, some 20,000. Strawberry Valley in the San Jacinto Mountains appears to be a paradise for the California Woodpecker. Here majestic oaks (*Quercus californica*) alternate with still more majestic pines (*Pinus ponderosa*), the former for sustenance and the latter for storage, and the doughty "California" is probably the most abundant bird in the valley. The boles of the most enormous pines are methodically riddled with their acorn-carrying niches, and in some of the trees the work is carried through from base to crown. In one such tree I estimated that there were imbedded no less than 50,000 acorns.

Why does the bird do it? Ostensibly, of course, for food. Acorns form more than fifty per cent of this Woodpecker's diet and by this provident arrangement the bird is able to regale itself on mast throughout the year. These treasure-houses are not "worm cultures" as was formerly supposed. Many of the acorns do become infected, but these represent, apparently, a dead loss to the bird. Care is taken, in selection, to provide sound acorns, and one authority asserts, with what justice I do not know, that the birds are shrewd enough to select sweet ones out of the host of bitter acorns. Acorns so preserved keep sweet and usable much

longer than they would upon the ground, and are probably good for more than one season. But the fact remains that the provision made is out of all proportion to any possible use. Chipmunks, California Jays, and other Woodpeckers, especially the Lewis, levy upon this horde as often as they dare; but the Californias are very zealous in defense, and do not hesitate to employ platoon tactics when threatened. The feud is especially sharp between the Californias and the Lewises, and one observer[1] tells how a wounded Lewis Woodpecker, escaping from the gunner, sought refuge in a California tree. The Californias set upon him promptly, and one of their number paid forfeit with his life, for, when the huntsman arrived he found the Lewis Woodpecker dead with two of his talons sunk into the California's eyes and two in his pierced skull.

But, again, why does the bird hoard treasure on this lavish, irrational scale? For exercise? Perhaps. To be doing something—for the same reason that a high school girl chews gum or a callow youth sucks cigarettes, a matron does embroidery, or a middle-aged gentleman of increasing girth trots after a twinkling white ball—to kill time. Possibly, also, from force of habit. Following the blind urge of a provident instinct, the bird over-shoots the mark. Having no accurate criterion of judgment, or inhibitive power, it just goes on forever, *working*.

It is not impossible, of course, that some ancestral experience of drought and famine has fastened this lesson of providence deep in the Balanosphyrine race; but it is much more probable that the species is hipped, and that it applies no more reason to its life than does an old miser who goes on hoarding gold. Be this as it may, the explanation what you will, the obsession of the California Woodpecker is undoubtedly one of the most pathetic things in nature.

[1] Howard W. Wright, "Condor," Vol. X., p. 93.

No. 201

Lewis's Woodpecker

A. O. U. No. 408. **Asyndesmus lewisi** Riley.

Synonym.—Black Woodpecker.

Description.—*Adults:* Above shining black with a greenish bronzy luster; "face" including extreme forehead, space about eye, cheeks, and chin, rich crimson (carmine or oxblood red); a collar around neck continuous with breast hoary ash; this ashy mingled intimately with carmine, or spectrum red, on remaining underparts, save flanks, thighs, and crissum, which are black; feathers of nape and underparts black and compact at base, but finely dissected on colored portion of tips, each barb lengthened and bristly in character. Bill and feet black; iris brown. *Young birds* lack the crimson mask and hoary collar; the underparts are gray mingled with dusky below, with skirtings of red in increasing abundance according to age. Length of adult 254-279.4 (10.00-11.00); wing 171.5 (6.75); tail 95 (3.74); bill 30.5 (1.20); tarsus 25.4 (1.00).

Recognition Marks.—Robin size; shining black above, hoary collar and breast; red mingled with hoary ash on underparts distinctive.

Nesting.—*Nest:* In hole excavated in live or dead tree, usually at considerable height. *Eggs:* 5-9; white, slightly glossed. Av. size 26.2 x 20.3 (1.03 x .80). *Season:* May 15–June 15; one brood.

General Range.—Transition zone of western United States from southern British Columbia and southern Alberta south to California and western Texas, and from the Black Hills of South Dakota, and western Kansas, west to the inner coast ranges of California and the western slopes of the Cascades, or rarely to Vancouver Island.

Distribution in California.—Summer resident, of rather sporadic appearance locally, in high Upper Sonoran and Transition areas of the northern counties from the Warners to the Siskiyous and Trinities, south along both slopes of the Sierras, and irregularly along the inner coast ranges; casually south in summer (probably breeding) to San Bernardino Valley, Ventura County (Sespe), and Santa Barbara. Of usual though irregular occurrence in winter in timbered sections anywhere west of the Sierras and in the San Diegan district.

Authorities.—**Audubon** (*Picus torquatus*), Orn. Biog., vol. v., 1839, p. 176 (Calif.); *Marsden*, Condor, vol. ix., 1907, p. 27 (feeding habits); *Bolander*, Condor, vol. xvi., 1914, p. 183 (Alameda Co., nesting).

NOT the least strange of the many new creatures discovered by a famous expedition of a hundred years ago was this curious black woodpecker, which Wilson named *torquatus* (collared), but which soon became known by the name of the intrepid leader, Captain Meriwether Lewis. In habit and appearance the bird combines crow, jay, woodpecker, flicker, and flycatcher. It is perhaps as flycatcher that we know him best, as we see him sail out from the summit of a cottonwood or towering pine-tree and make connection with some object to us invisible. If the

insects are flying freely, the bird may conclude to remain aloft for a few minutes, fluttering about in great, watchful circles, ready for momentary dashes and adroit seizures. A dozen of his fellows may be similarly engaged in the same vicinity, for Lewis is ever a sociable bird, and when he returns to his perch he will raise a curious raucous twitter, a rasping, grating, obstructed sound, which is his best effort at either conversation or song.

LEWIS WOODPECKER

In passing from tree to tree the Woodpecker presents a crow-like appearance, for it moves with a labored, direct flight, which is quite different from the bounding gait so characteristic of many of its real kinfolk. In alighting, also, the bird is as likely to bring up on top of a limb, in respectable bird-fashion, as to try clinging to the tree-trunk. The pursuit of wood-boring beetles is evidently a lost art to this indolent dweller in the sun, and even bark-inspection is sadly neglected. Amateurish, also, are its attempts at rapping out a tattoo on a dead pine branch. A passing comrade will mock the effort, and in the playful scuffle which follows the drummer's task is quite forgotten. "Tag" is a favorite game, and as for "Holding Bunker Hill," a bevy of youngsters will line up along a favorite limb and snigger and scramble and shove and tumble off by turns, to get a new "holt," for half an hour at a time.

Lewis Woodpeckers are rather wary, and if one starts out to secure a specimen, he is surprised to note how the birds manage to edge off while still out of range, and to fly away across the tree-tops rather than trust themselves to the lower levels. A wounded bird will put up a spirited defense with beak and claw; and with the latter it is especially dexterous, sending its needles home with a vice-like grip which, at best, leaves

Taken in Siskiyou County *Photo by the Author*

THE CEMETERY WHICH LEWIS HAUNTS

unpleasant souvenirs. But it is well worth one's while to examine a specimen, because of the exceptional character of the bird's plumage. The hoary ash of the collar contrasts strikingly with the glossy green of the upperparts; while the rich crimson, mingled with ashy, below, serves to emphasize the extraordinary hair-like character of the feathers themselves. If it had been a Sapsucker, now, or a Hairy, we could readily

understand how the abdominal plumage might have been teased to rags through constant friction with rough bark; but this lazy Jack-of-all-trades, who is more flycatcher than true woodpecker, how did he get his under-plumage so fearfully mussed?

For all the Black Woodpecker keeps largely to the tops of trees, it is not averse to ground-meats, and where unmolested will descend to feed with Cousin Flicker upon crickets, geotic beetles, or fallen acorns. Grasshoppers are a favorite food, and during the season of their greatest abundance the bird requires little else. Service berries are sampled in season, wild strawberries are not often neglected, and the bird has been known to filch a cherry now and then. Indeed, there has been some just complaint, in fruit-growing sections of northern and Sierran foothills, of depredations committed by these versatile birds upon peach and apple orchards. They do not appear to molest citrus fruits, but pomegranates, quinces, and, occasionally, persimmons have suffered in the South. Save for such orchards as lie within the immediate breeding range of *lewisi*, the danger is slight; but in the worst cases a little "discipline" is undoubtedly justifiable.

Taken in San Luis Obispo County *Photo by the Author*

ON LOOKOUT

The cherished diet of the Lewis Woodpecker is, however, the acorn. No one begrudges to *Asyndesmus* this abundant and humanly useless food, except that Rockefeller of acorndom, the California Woodpecker. If *Balanosphyra* had his way, every drop of the oaken product would be stored up in Standard tanks (or grills, or cultures, or whatever you choose to call them), and kept there under lock and key till worm's-day. *A. lewisi* and his crowd are "Independent," however. They claim the right to help themselves to

acorns off the ground, and they have been known to swagger about on the wing in a most insolent manner, each with his beak thrust into an acorn. It is even whispered—the story comes from Colorado—that the "Independent" crowd has experimented with storage tanks on its own account, and that it has patented an improvement, namely, that of stripping off the husks before storing acorns away in crannies and abandoned hollows in trees. Of course this is gall and wormwood to the Californias, who, in turn, suspect the Lewises—rightly, no doubt—of filching from their stores.

The acorn crop is, possibly, the controlling element in Lewis's choice of winter quarters. The bird, at best, is of somewhat irregular or sporadic occurrence, even in its summer range. In winter, when it forsakes the northern latitudes and falls back from the Transition altitudes of our own mountains, it may appear in regions which have scarcely known its presence before; or it may be unaccountably absent from other quarters, where its appearance was reckoned as commonplace. The autumnal movements of this species are sometimes quite striking in point of numbers, but the return movement is more desultory and seldom provokes comment.

Nesting occurs typically in rather open country, in a scattering stand of Upper Sonoran pines, in charred stubs overlooking an old fir slashing, or in the cottonwood belt which lines some of our northern streams. The nesting hole, which, according to some authorities, may serve for several seasons, is tunnelled at any height in dead timber or, more rarely, in a living pine. A set in the M. C. O. collection was taken on the 12th of June, 1912, from a hole sixty-five feet up in a giant pine stub overlooking Goose Lake. Being without climbers (which are little used in California) and the tree being of huge girth, I shall not soon forget the intimate discussion with each dead branch in the perilous stairway which led up to the treasures. The bird was generous, six fresh eggs, and I am sure she did not begrudge the pearly trophies, since she made no remonstrance. As Captain Bendire well says:[1] "On its breeding ground Lewis's Woodpecker appears to be a stupid and rather sluggish bird; it does not show nearly as much parental affection as most of the other members of this family, and it is much less demonstrative. It is not at all shy at such times, and will often cling to some convenient limb on the same tree while its eggs are being taken, without making the least complaint. A second and smaller set is generally laid a couple of weeks later if the first one is taken, and not infrequently in the same nest if the entrance hole has been left intact."

[1] Life Histories, Vol. I., p. 120.

No. 202

Gila Woodpecker

A. O. U. No. 411. **Centurus uropygialis uropygialis** Baird.

Description.—*Adult male:* Head and neck all around and most of underparts buffy drab, paler on forehead and sides of crown, where enclosing a patch of carmine; the cervix occasionally glossed with light cadmium (recalling the nuchal patch of *C. aurifrons*); the rump and upper tail-coverts white, sharply but sparingly marked with V-shaped and brace-shaped black bars; the tail black-and-white centrally, solid black on exposed edges; remaining upperparts heavily and equally black-and-white barred; the tips of wing broadly dusky, but the quills narrowly tipped with white; the center of belly light cadmium yellow; the axillars, flanks, crissum, and under aspect of tail black-and-white barred. Bill and feet black. *Adult female:* Like male, but without red on crown—drab instead. Length 203.2-254 (8.00-10.00), averaging about 228.6 (9.00); wing 130 (5.12); tail 80 (3.15); bill 30 (1.18); tarsus 22.5 (.886). Females average considerably less.

Recognition Marks.—Towhee to robin size; drab foreparts and breast, in sharp contrast with black-and-white-barred wings and tail, distinctive.

Nesting.—*Nest:* A hole in giant cactus with walls formed by dried juices of plant; also in mesquite, willow, or other tree. *Eggs:* 3-5, usually 4; white, scarcely glossy. Av. of 28 eggs from Arizona in M. C. O. coll.: 24.9 x 18.5 (.98 x .73); index 74.7. *Season:* April (Colorado River Valley), May (Santa Cruz plateau, Ariz.); one brood.

Range of *Centurus uropygialis.*—Western Mexico and Lower California north to southeastern Nevada.

Range of *C. u. uropygialis.*—That of the species minus the southern half of Lower California (*brewsteri*).

Distribution in California.—Resident in the valley of the Colorado River, where closely confined to the willow-cottonwood association and the adjacent patches of giant cactus.

Authorities.—Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 111 (spec. from Ft. Yuma); *Morcom,* Bull. Ridgway Orn. Club, no. 2, 1887, p. 42 (vic. Ft. Yuma, breeding); *Grinnell,* Univ. Univ. Calif. Pub. Zool., vol. xii., 1914, p. 133 (Colo. Valley; habits, nest and eggs, etc.); *Gilman,* Condor, vol. xvii., 1915, p. 151, figs. (life hist. in s. Ariz.).

NO BIRD-LOVER can recall the image of a sahuaro, that quaint vegetable tombstone of the desert, without at the same time focusing his mind upon this petulant, impudent, and inevitable bird. The Gila Woodpecker and the Gilded Flicker are the lawful custodians and business agents and caretakers of all properly constituted "giants." Prospective tenants, whether Elf Owls, Ash-throated Flycatchers, Western Martins, or Sparrow Hawks, must look to them for quarters. And if these renters do not always exhibit a becoming gratitude, the Gila, at least, gets it back at them by gossiping, by snooping and prying, by unquenchable criticism,

and sometimes, we fear, by downright theft. A nesting cavity in the soft bosom of one of these monumental cactuses is not a difficult thing to prepare; but it is a rather dirty job, and the delving bird gets his snuff-brown foreparts sadly smeared and stained with the slithery sahuaro juice. The excavation, moreover, requires a year in which to cure, that the surface of the cavity may develop a weathered shell which will be even measurably resistant to the percolating juices. In this cavity, then, the parent woodpeckers rear a first brood of young in April. In May or early June they are more apt to repair to the wooded bottoms, where covering foliage has now developed, to excavate a fresh nest for immediate occupancy, in willow, cottonwood, or mesquite.

In the meantime, the chief business of the Uropygian day is to spy upon neighbors, to squabble, to chatter, to shriek and chase, and in general to constitute themselves a neighborhood nuisance. In the latter function is included a systematic search for birds' eggs, especially those of the Lucy Warbler, Yellow Warbler, and Arizona Least Vireo. In case of the first-named, the eggs are devoured in spite of the most emphatic protests of the tiny parents; but eggs of Cardinal, Cooper Tanager and Towhee must be obtained by stealth. In the utter absence of jays upon our Lower Sonoran levels, the Gila Woodpeckers appear to enjoy an undisputed field. My son once saw a Gila enter, in the absence of the owner, the nest of a Gilded Flicker which contained eggs,—enter and remain for some minutes. Yet in this instance no material harm resulted. The bird was just taking notes upon her neighbor's menage.

Curiously enough, the home life of these feathered burglars is practically ideal. The devotion of the male, especially to the eggs and young, is fairly pathetic. Supposing it to contain a full set of eggs, I once chopped out a hole in a mesquite tree, after having first thrust in a handkerchief to arrest falling chips. Upon removal of the cloth a male Gila was disclosed. He had abundant opportunity to escape—in fact, was urged to do so; yet he preferred to remain and to strike savagely at the encouraging finger. Judge of my surprise when, upon forcing him off from below, I found two perfectly fresh eggs—an incomplete set!

The young are hatched mother-naked, and, since they have no need of clothes for decency's sake nor yet for warmth, long remain so, the scandal of creation when dragged forth to light. When this disenchanting operation is attempted, the parents dance close attendance and pour out a flood of petitions—as though they had not themselves refused a dozen prayers that very day! Ah, me! consistency!—oh, well, you understand; we put the youngsters back.

We have only time left to take a drink with the Gila. Drink, Old Top, and forget old scores! I sat at an encouraging but observant dis-

tance from the water-hole when my guest arrived. The water was none of the purest, quite green, in fact; but the children of the desert are not fastidious. The Woodpecker arrived ostentatiously, like a belated constable. He first bowed obnoxiously a dozen times or more, from a neighboring brush pile, then he hitched up where he could observe the small fry at their potations. A Cooper Tanager was sipping a modest beaker, and gazing, Narcissus-like, at a vision of wondrous beauty, which I, good sooth, was enjoying in double measure. The dainty Ground Doves, after a little amorous prancing, had thrust their nozzles deep into the pool and were drinking like tired horses. But now the Gila Woodpecker had come. He tittered consciously, and acknowledged his thirst by covetous glances. Then he sought a branch which descended sharply into deep water, and down this he advanced cautiously, by tittering hitches. Down and down the dread descent he went, until at last his tail, his handsome, black-and-white-barred tail, was partially submerged. Then the bird tilted forward and selected one drop of water. This was allowed to trickle down his throat with every appearance of satisfaction, the while his tail went souse again into the water. Then another drop was selected, and another, until by and by he had established a regular pump-motion between bill and tail: dip, souse; dip, souse; dip, souse—and all the while he clung sidewise to a perpendicular twig. *Dum vivimus vivamus!*

No. 203

Yellow-shafted Flicker

A. O. U. No. 412a. **Colaptes auratus borealis** Ridgway.

Synonyms.—Flicker. Boreal Flicker (Ridgway). Northern Yellow-shafted Flicker (name now restricted to *C. a. luteus*). Northern Flicker. Golden-winged Woodpecker. Yellow-hammer. High-hole. High-holder. Pigeon Woodpecker. Wake-up.

Description.—*Adult male:* Top of head and cervix ashy gray, with a vinaceous tinge on forehead; a bright scarlet band on back of neck; back, scapulars, and wings vinaceous gray, with conspicuous black bars, brace-shaped, crescentic, or various; primaries plain dusky on exposed webs; lining of wings and shafts of wing-quills yellow (lemon-chrome to primuline yellow); rump white; upper tail-coverts white, black-barred in broad "herring-bone" pattern; tail double-pointed, black, and with black shafts on exposed upper surface; feathers sharply acuminate; tail below, golden-yellow and with yellow shafts, save on black tips; chin, sides of head, and throat vinaceous, enclosing two broad black malar stripes, or moustaches; a broad black pectoral crescent; remaining underparts white with heavy vinaceous shading on breast and sides, every-

where marked with sharply defined and handsome round, or cordate, spots of black. Bill and feet dark plumbeous. *Adult female:* Similar, but without black moustache. Sexes about equal in size. Length 279.4-323.9 (11.00-12.75); wing 162.5 (6.40); tail 106.2 (4.18); bill 36 (1.42); tarsus 28.9 (1.14).

Recognition Marks.—Robin size; pectoral black crescent, white rump, black-spotted breast, bill slightly curved, etc. (in common with *C. cafer*); *yellow* flickerings in flight, scarlet nuchal band, *black* malar stripe (of male), in contrast with *C. cafer.*

Nesting.—Does not breed in California. *Nest:* An excavation in tree or stump, usually made by the bird, at moderate heights; unlined, save by chips. *Eggs:* 4-10, usually 7 or 8; glossy white. Av. size 27.7 x 21.6 (1.09 x .85).

Range of *Colaptes auratus.*—Northern and eastern North America from the limit of trees to the Gulf Coast.

Range of *C. a. borealis.*—Breeds in northern North America from Labrador along the limit of trees to the Kowak River and Bering Sea, south to northern Ontario, Minnesota, and eastern Wyoming. Winter range not yet clearly distinguished, but stragglers, at least, occur down the Pacific Coast to southern California.

Occurrence in California.—Not common winter visitor chiefly west of the Sierras. (Santa Barbara, Nov. 4, 1911; Jan. 23, 1915; Nov. 29, 1919, 4 birds).

Authorities.—Ball (*Colaptes auratus*), Auk, vol. ii., 1885, p. 383 (San Bernardino); *Swarth*, Condor, vol. iii., 1901, p. 66 (Los Angeles, one spec.); Condor, vol. xii., 1910, p. 107 (hybrid); *Grinnell*, Pac. Coast Avifauna, no. 11, 1915, p. 82 (status in Calif.).

WE ARE always chiding our undiscriminating friends for calling the Flickers of California "Yellow Hammers," whereas the birds are red. But once in a coon's age the guess is correct. Flickers with *yellow* shafts do occur, now and then, but chiefly in winter, in very diverse sections of the State. And when they are found, there are four possibilities to choose from: Either (1) the bird is a simon-pure *C. a. borealis* from Alaska; or else (2) it is a hybrid from northwestern British Columbia where *C. a. borealis* and *C. cafer saturatior* interbreed; or (3) it is a hybrid from central Alberta where *C. a. luteus* and *C. c. collaris* meet; or else (4) it illustrates a rare dicroic phase of *Colaptes cafer* itself. Evidence upon the last-named point has not yet been duly arrayed. It would manifestly require to be supported by breeding birds, but that dichroism is a very probable explanation of some of the occurrences recorded in the name of *C. auratus*, is clearly suggested by the dichromatic situation known to exist in the case of the Gilded Flicker, *C. chrysoides mearnsi.* Without much doubt, also, some of the yellowed examples from California are true hybrids. The re-amalgamation, in Alberta and Saskatchewan, of two races of *Colaptes*, long separated, is one of the romances of American ornithology. But most interesting of all, for our present consideration, is the fact that a form now dominant in Alaska, and which reached that station by the familiar northwest flight-line, occasionally sends stragglers

directly south. Grinnell in his Distributional List (1915) allows three such "pure blood" records, including one, a female, from Los Angeles (Feb. 20, 1901). I have noted two occurrences at Santa Barbara, which I am thoroughly satisfied were those of true *auratus;* first, Nov. 4, 1911, a single bird seen in the sand dunes west of La Patera; and second, four birds, Nov. 29, 1919, two of which, both females, were closely studied by the Bird Club in a walnut grove near Goleta.

No. 204

Red-shafted Flicker

No. 204a Red-shafted Flicker

A. O. U. No. 413. **Colaptes cafer collaris** Vigors.

Synonyms.—Red-winged Woodpecker. High-holder. "Yellow-hammer." Pigeon Woodpecker.

Description.—*Adult male:* Similar to *C. auratus borealis*, but yellow of feather-shafts, etc., replaced by orange-vermilion (flame-scarlet on shafts, quills, and rectrices; grenadine on lining of wings); cast of upper plumage correspondingly reddish (very faintly, a mere vinaceous tinge to the brown); no scarlet nuchal patch; a broad malar stripe of scarlet (replacing the black stripe of *C. a. borealis*); sides of head, and throat, clear bluish ash; underparts tinged with lilaceous (palest orient pink). *Adult female:* Like male, but scarlet malar stripe replaced by vinaceous brown, or else gray like throat. *Young birds* are like adults, but duller; top of head overlaid with warm brown, and throat more or less washed with brownish. Length (averaging a little more than that of *C. auratus borealis*): 279.4-336.55 (11.00-13.25); wing 165 (6.50); tail 110 (4.34); bill 37.5 (1.48); tarsus 29.3 (1.15).

Remarks.—Between this and *C. auratus borealis* or *luteus* every form of gradation exists. Hybrids, for such they really are, most frequently reveal themselves by the presence of *three* scarlet patches (in the male), i. e., two malar and one nuchal. The "illumination" of the wings and tail in these hybrids also varies interminably through muddy yellows, ochres, and cadmiums. These two species illustrate in the most perfect manner the effect of contact between closely related stocks, long separated, which meet again after specific differences have become thoroughly established. The hybrids produced along the line, or rather, throughout the interpenetrated area of contact, are fertile, but so constant is the influx of fresh, pure stock that there is no evidence of a tendency to fix a standard of intermediate character. The "Hybrid" Flicker (*C. auratus* x *C. cafer*) is not yet a species.

Recognition Marks.—Robin size; brown finely barred with black above; underparts heavily spotted with black; flame-color of under wing surface prominent in flight; scarlet malar stripe of male distinctive; lighter than succeeding.

Nesting.—Much as in *C. a. borealis*, and eggs indistinguishable. For nesting sites bird makes use of wooden buildings or earth-banks, in default of trees. Av. size of eggs 28.4 x 21.6 (1.12 x .85). *Season:* May; one brood, rarely two.

Range of *Colaptes cafer.*—Western North America from southern Alaska to southern Mexico.

Range of *C. c. collaris.*—Western United States and southwestern British Provinces (except Northwest coast strip), and northern Mexico.

Distribution in California.—Common resident of Upper Sonoran and Transition zones practically throughout the State, except in the humid Transition of the extreme Northwest. Breeds locally in Boreal zone, and ranges freely to timberline. In winter, numbers greatly augmented by accessions from the North, at which season also it may be found upon the deserts.

Authorities.—Vigors (*Colaptes collaris*), Zool. Jour., vol. iv., 1829, p. 354 (orig. desc.; Monterey); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 55 (San Joaquin Valley, habits, etc.); *Wetmore*, Condor, vol. xviii., 1916, p. 112 (speed of flight); *Stoner*, Condor, vol. xxiv., 1922, p. 54 (study of roosting holes).

No. 204b Northwestern Flicker

A. O. U. No. 413a. **Colaptes cafer saturatior** Ridgway.

Description.—Like *C. c. collaris*, but larger and darker; ground-color of upperparts burnt umber with a purplish tinge; ground-color of underparts vinaceous buff to color of back; sides of head and throat deep smoke-gray; pileum cinnamomeous. Length up to 355.6 (14.00); wing 168.5 (6.635); tail 118 (4.65); bill 39.4 (1.55); tarsus 30 (1.18).

Remarks.—Specimens in the Provincial Museum at Victoria, B. C., indicate hybridization between this form and *C. auratus borealis*. Of 27 males from Vancouver Island nine possess in whole or in part the scarlet nuchal patch characteristic of *auratus*. Presumably, therefore, many of the winter visitant hybrids which reach our coasts are between these two forms, *C. c. saturatior* and *C. c. borealis*.

Recognition Marks.—As in preceding; darker.

Nesting.—*Nest:* As in preceding species. *Eggs:* 6-9; av. of 33 specimens from Eureka in M. C. O. coll.: 28.7 x 22.25 (1.13 x .876); index 76.6; range 26.4-32 by 20.8-23.4 (1.04-1.26 by .82-.92). *Season:* May–June; one brood.

Range of *C. c. saturatior.*—Humid Transition zone of the Northwest coast district from Humboldt Bay, California, to Sitka, Alaska.

Distribution in California.—Resident in the extreme northern coastal strip. Intergrades widely with *collaris* upon east and south.

Authorities.—Townsend, Proc. U. S. Nat. Mus., vol. x., 1887, p. 206 (Red Bluff); *Anderson and Grinnell*, Proc. Acad. Nat. Sci. Phila., 1903, p. 9 (Siskiyou Mts., crit.); *Swarth*, Univ. Calif. Pub. Zool., vol. vii., 1911, p. 70 (s. e. Alaska, distr., habits, crit.); *Palmer*, Auk, vol. xxxiii., 1916, p. 322 (nomencl.).

THE STUPIDITIES of nomenclature are nowhere more clearly illustrated than by the case of this species, the first example of which fell into the hands of a "closet naturalist," Gmelin. This doughty bird-namer, who was working over a miscellaneous collection, supposed that the specimen he was handling hailed from Africa, and he, accordingly, named it *Cafer* (i. e., Kaffir). The "law of priority" is inexorable. How else could the diluted output of our subspeciologists be saddled upon posterity!

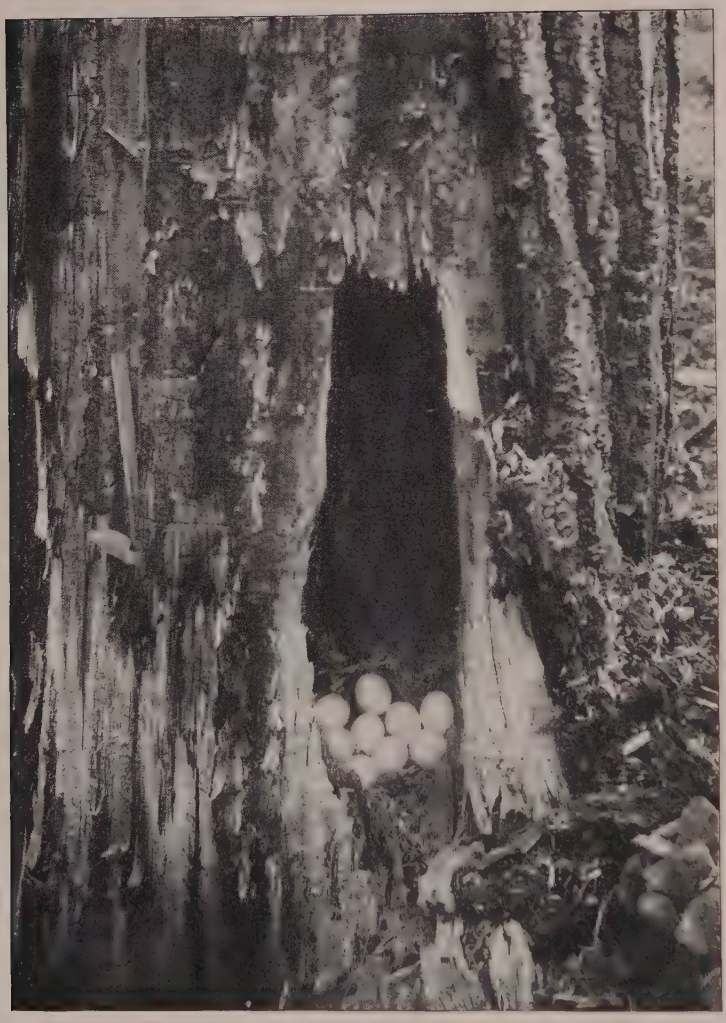
Taken in Oregon *Photo by Finley & Bohlman*

YOUNG NORTHWEST FLICKERS

Hence, we have a host of black men, Kaffirs, swarming over California, along with "Indians" who are ten thousand miles from India. But in this case the stupidity of "Science" is matched by the perverse carelessness of the man on the street (or, perchance, the man with the hoe) who calls the bird "Yellowhammer." *Cafer's* cousin, *auratus*, of the East, is yellow, and it hammers, although the Yellowhammer (or, more properly, the Yellow Ammer) is an Old World bird (*Emberiza citrinella*), guiltless of knocking. *C. cafer*, on the other hand, does hammer, but its trappings are of flame-scarlet, instead of cloth-of-gold. Call it Redhammer, then, if you will—and by so doing, you will add only one more to the *six or seven score* of nicknames by which the American flickers are known. For the flicker, under whatever local pseudonym he may flutter, is one of the best diffused and most familiar of American birds. And because in respect to song and behavior the western bird, *cafer*, does not differ materially from the eastern species, *auratus*, I venture to quote again three paragraphs from "The Birds of Ohio."

"It is perhaps as a musician that the Flicker is best known. The word musician is used in an accommodated sense, for the bird is no professional

singer, or instrumental maestro; but so long as the great orchestra of Nature is rendering the oratorio of life, there will be place for the drummer, the screamer, and the utterer of strange sounds, as well as for the human obbligato. The Flicker is first, like all other woodpeckers, a drummer. The long rolling tattoo of early springtime is elicited from some dry limb or board where the greatest resonance may be secured, and it is intended both as a musical performance and as a call of inquiry. Once, as a student, the writer roomed in a large building, whose unused chimneys were covered with sheet-iron. A Flicker had learned the acoustic value of these elevated drums, and the sound of this bird's reveille at 4:00 a. m. was a regular feature of life at 'Council Hall.'



Taken in Oregon *Photo by A. W. Anthony*

NEST AND EGGS OF RED-SHAFTED FLICKER

"The most characteristic of the bird's vocal efforts is a piercing call delivered from an elevated situation, *clape* or *kly-ak*, and *cheer* or *kee-yer*. The scythe-whetting song is used for greeting, coaxing or argumentation, and runs from a low *wee-co, wee-co* —through *wake-up, wake-up, wake-up*—to an emphatic *wy'-kle, wy'-kle, wy'-kle*, or, in another mood, sounds like *flicker, flicker, flicker*.

"In the early days of April, courtship is in progress, and the love-making of the Flicker is both the most curious

Taken in Pasadena *Photo by Donald R. Dickey*

RED-SHAFTED FLICKER ON NESTING BOX

and the most conspicuous of anything in that order. An infatuated Flicker is a very soft and foolish-looking bird, but it must be admitted that he thoroughly understands the feminine heart, and succeeds in love beyond the luck of most. A bevy of suitors will lay siege to the affections of a fair lady, say in the top of a sycamore tree. Although the rivalry is fierce, one gallant at a time will be allowed to display his charms. This he does by advancing toward the female along a horizontal limb, bowing, scraping, pirouetting, and swaying his head from side to side with a rhythmical motion. Now and then the swain pretends to lose his balance, being quite blinded, you see, by the luster of milady's eyes, but in reality he does it that he may have an excuse to throw

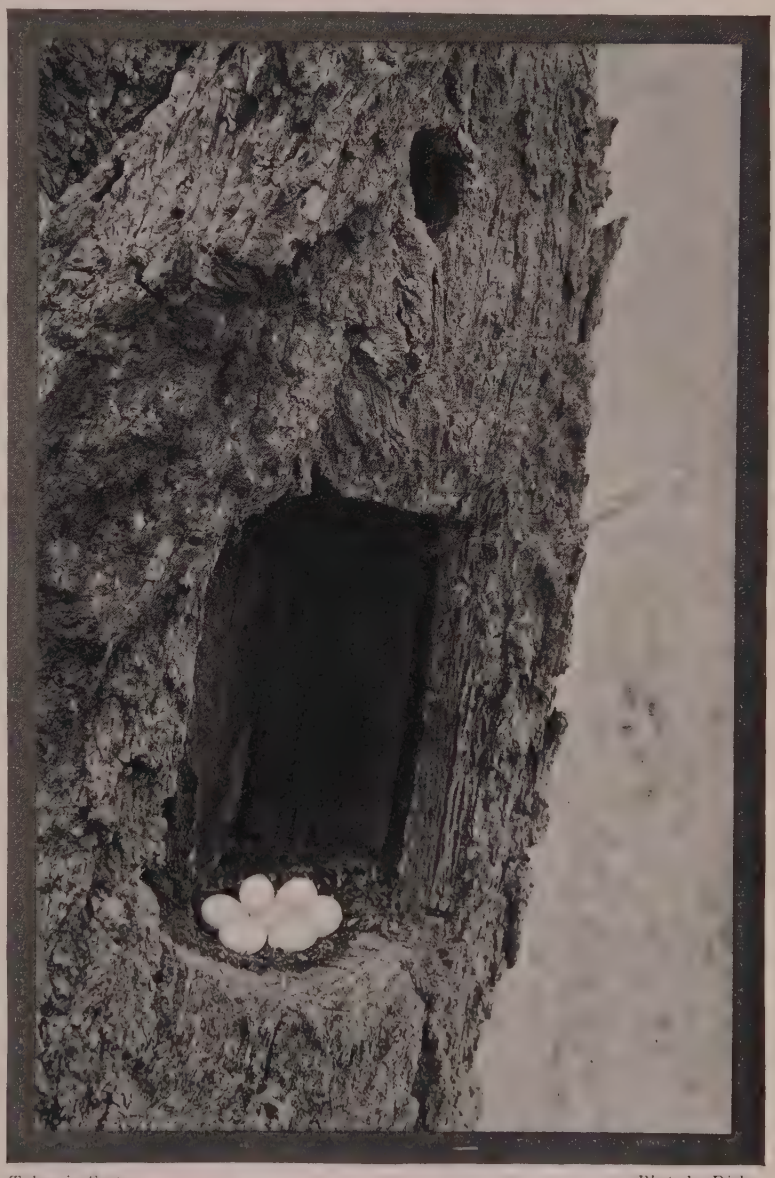
up his wings and display the dazzling flame which lines them. The lady is disposed to be critical at first, and backs away in apparent indifference, or flies off to another limb in the same tree. This is only a fair test of gallantry and provokes pursuit, as was expected. Hour after hour, and it may be day after day, the suit is pressed by one and another until the maiden indicates her preference, and begins to respond in kind by nodding and bowing and swaying before the object of her choice, and to pour out an answering flood of softly whispered adulation. The best of it is, however, that these affectionate demonstrations are kept up during the nesting season, so that even when one bird relieves its mate upon the eggs it must needs pause for a while outside the nest to bow and sway and swap compliments."

Nature has not always dealt justly with the western Flicker in the matter of providing an abundance of dead timber for nesting sites. What more natural, then, than that the stinted bird should joyfully fall upon the first "frame" houses and riddle them with holes? The front door of a certain country parsonage testifies to at least one pastoral vacation, by the presence of three large Flicker holes in its panels. The church, hard by, is dotted with tin patches which conceal this bird's handiwork; and the mind recalls with glee how the irreverent Flicker on a summer Sunday replied to the parson's fifthly, by a mighty *rat-at-at-at-at* on the weather siding. The district schoolhouse of a neighboring township is worst served of all, for forty-one Flicker holes punctuate its weather-beaten sides—reason enough, surely, for teaching the young idea of that district how to shoot. Indeed, the school directors became so incensed at the conduct of these naughty fowls that they offered a bounty of ten cents a head for their destruction. But it is to laugh to see the fierce energy with which these birds of the plains, long deprived of legitimate exercise, fall to and perforate such neglected outposts of learning. The bird becomes obsessed by the idea of filling a particular wall full of holes, and no ingenuity of man can deter him. If work during union hours is discouraged, the bird returns stealthily to his task at four a. m., and chisels out a masterpiece before breakfast. If the gun speaks, and one bird falls a martyr to the sacred cause, another comes forward promptly to take his place, and there is always some patriotic Flicker to uphold the rights of academic research.

Of course the situation is much relieved in the timbered foothills and along the wooded banks of streams, where rotten stubs abound. The Flicker is at home, also, to the very limit of trees on all our mountains,—as "boreal," therefore, as any bird, save the Rosy Finch and the Rock Wren. It is not found during the breeding season upon the warmer deserts, although abundant there in winter; and in general, it is a lover

of cool, moist situations, if these are also comparatively open. Nests are usually excavated in the month of April, or from that to June, according to elevation; and any tree or stump may serve as host. In a northern locality I saw a Flicker's nest in a stump only two feet high, and its eggs rested virtually upon the ground. Others occur in live willows, cottonwoods, oaks (whether black or white), and apple trees. Pine and fir stubs have their uses also; and I have seen nests, a few, sixty feet up in dead pine trees. The birds nest also in the walls of buildings, in which case they lug in chips to lay on beam or sill, and so prevent the eggs from rolling. In southern California the Flicker occasionally nests in banks, after the fashion of Kingfishers; but in such instances the nests are easily recognized by their larger size, and by the exaggerated key-hole shape of the entrance.

From six to ten highly polished, semi-transparent, white eggs are laid upon the rotten wood or chips which usually line a nest; and incubation begins, customarily, when the last egg is laid. Bendire notes an instance, in the



Taken in Sespe *Photo by Dickey*

THE HOLE STORY

Blue Mountains of Oregon, of a Flicker's nest which contained at one time three young birds just hatched, two pipped eggs, and five perfectly fresh eggs, of which one was a runt.

The female is a close sitter, and instances are on record in which pebbles dropped in upon her have failed to dislodge her; or in which, once being lifted off, she brushed past the disturber to re-enter the nest. Although provided with a bill which might prove a formidable weapon, the Flicker is of too gentle a nature to wield it in combat, and seldom offers any resistance whatever to the intruder.

After fourteen days young birds are hatched, blind, ugly, helpless. In a few days more, however, they are able to cling to the sides of the nesting hollow, and are ready to set up a clamor upon the appearance of food. This noise has been compared to the hissing of a nest of snakes, but as the nestlings grow, it becomes an uproar equal to the best efforts of a telephone pole on a frosty morning.

The young are fed entirely by regurgitation, not an attractive process, but one admirably suited to the necessities of long foraging expeditions and varying fare. When able to leave the nest, the fledglings usually clamber about the parental roof-tree for a day or two before taking flight. Their first efforts at obtaining food for themselves are usually made upon the ground, where ants are abundant. These, with grasshoppers and other ground-haunting insects, make up a large percentage of food, both of the young and adults. It is worthy of remark what an effective instrument the Flicker has in its tongue. This member can easily be extended two and a half inches beyond the tip of the bill, or three, if forced by hand. To accomplish this feat the supporting bones of the base, the hyoids, have undergone an extraordinary elongation. Not content with merely wrapping about the entire skull just beneath the skin, as do the hyoids of other woodpeckers, these escape at the forehead and, *re-entering the right nostril from the outside*, push their way clear to the tip of the bill through a hollow of the upper mandible. The skull of the Flicker has become a sort of pulley block, over which the mobile, cord-like hyoids play incessantly. When feeding upon ants, the Flicker protrudes its tongue, and lets it lie along the ground for a moment until the little victims swarm over its surface and are engaged by its viscid coating. A sudden withdrawal assures a feast and the number of ants which the bird can bag in this fashion is amazing. Five thousand of a small species (*Crematogaster sp.*) were found by Beal in a single stomach—these and a portion of sand incidentally acquired.

No. 205

Mearns's Gilded Flicker

A. O. U. No. 414b. **Colaptes chrysoides mearnsi** Ridgway.

Description.—General pattern that of preceding forms, but color of upperparts lighter in tone and the black barring greatly reduced; the illumination of wings and tail in normal plumage similar to that of *C. auratus*, the distribution of red on head exactly that of *C. cafer*. *Adult male in normal* (yellow) *plumage:* Nasal tufts and pileum warm cinnamon-brown (sayal brown); back and wings wood-brown, lightly and narrowly but increasingly (proceeding backward) spotted or barred with black; rump broadly white; upper tail-coverts white barred with black; tail, including exposed (dorsal aspect) quills, black; quills dusky on exposed webs, their shafts, together with distal portion of under surface and basal portion of exposed lower rectrices, golden yellow (light cadmium); the basal portion of quills (inner webs and under surface) and wing-lining lighter (buff-yellow or warm buff); throat and sides of head and neck bluish ashy, interrupted by broad scarlet-red malar stripe; a black pectoral patch and remaining underparts lilaceous or pale orient pink, heavily marked with rounded or cordate black spots (quite as in the other members of *Colaptes*). *Adult male, rufescent phase:* As in foregoing, but illumination of wings and tail orange-pink (the shafts bittersweet pink, the lighter linings orient pink). *Adult female* (both phases): Similar to male, but without malar red stripe—plain bluish gray instead. Av. of 7 Colorado River specimens: Length 274.83 (10.82); wing 148 (5.83); tail 92 (3.62); bill 36.4 (1.43).

Remarks.—A dwarfed and pallid (older?) brother of *Colaptes cafer*, probably differentiated by isolation in Lower California, and recently invading southeastern California and Arizona from the southwest. The normal yellow illumination of wing again points to close relationship existing between *C. auratus* and *C. cafer*, while the variant red phases found by Grinnell and others in the Colorado River valley appear to be due, as Grinnell suggests, rather to chemico-physiological changes than to hybridization with *C. c. collaris*.

Recognition Marks.—Robin size; general marks of preceding species; lighter color tone and golden illumination of wings and tail distinctive in range.

Nesting.—Breeds chiefly in holes in sahuaro cactus, but also in mesquite, willow, etc. *Eggs:* 4; glossy, white. Av. of 45 specimens in M. C. O. coll.: 27.4 x 20.6 (1.08 x .81); index 75; range 24.1-30.8 by 19.1-22.6 (.95-1.21 by .75-.89). *Season:* April–May 15; one brood, rarely two.

Range of *Colaptes chrysoides.*—Lower Sonoran zone in southeastern California, southern Arizona, Sonora, and Lower California.

Range of *C. c. mearnsi.*—That of the species minus Lower California.

Occurrence in California.—Resident on the west bank of the Colorado River above the Laguna Dam.

Authorities.—H. Brown (*Colaptes chrysoides*), Condor, vol. vi., 1904, p. 46 (Calif. side, Colo. R.); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 135 (Colo. Valley, habits; crit.); *Gilman*, Condor, vol. xvii., 1915, p. 160, figs. (s. Ariz., habits, nest, eggs); *Howell and van Rossem*, Condor, vol. xvii., 1915, p. 233 (Colo. Valley, near Potholes in winter).

The Mearns Gilded Flicker

IT IS—it is—the Gilded Flicker! He takes flight from a palo verde, and we get a flash of authentic gold as he lights against the side of a giant cactus (as though it were not at all beset with spines, that should be fearful). He shouts, *Culloo' cullitoo'*, with jovial pretense of fear, and bows emphatically with disarming waggishness. It is our old friend, the Flicker, surely none other, known from seaboard to seaboard, and from New Orleans to—one had almost said "the Pole." Yes; but his voice is a little thinner; and the shafts of his quills with the accompanying illumination of the webs, are *golden*, instead of grenadine (red). For the rest it is our Flicker, and, save as influenced in habit by special conditions, the self-same bird which blessed our childhood.

The distribution of the Gilded Flicker is almost exactly coincident with that of the sahuaro, or "giant cactus." There is only one conspicuous stand of this plant left in California, that occurring just above the Laguna Dam on the Colorado River. But wherever the presence of the suhuaro affords an excuse for the bird, the latter is apt to occupy neighboring timber as well, whether mesquite, cottonwood, or willow. It is for this reason that the present flicker population of the Colorado River "bottoms" somewhat exceeds the accommodations provided by the modest remnant of "desert candelabra."

The hospitality of the giant cactus on its native desert is almost unbounded. Its fleshy columns, flanked by fluted arms no less hospitable, shelter not only woodpeckers and owls, but wrens, martins, flycatchers, hawks, doves, and ravens. The gracefully upturned branches, though themselves a dead weight upon the parent stem, will support a man's weight beside, and there is always room for a hawk's nest at their clustering bases. The succulent flesh of the sahuaro is guarded externally by a series of bristling spines, and it is supported internally by a concentric row of woody ribs, which gather strength as the plant rears itself to an impressive height, 25, 30, or even 40 feet. An isolated plant of good size is sure to contain several nesting holes, and a veteran is riddled with them, each the scene of some domestic venture present or past, and most of them cherishing a lively expectation of repeated occupancy. The sahuaro, moreover, furnishes not only lodging, but a very substantial "board," in the shape of luscious fruits borne in profusion upon the growing crown, or upon the ends of the branches. Its body, however, is not largely subject to decay, and the proportion of moribund giants is a small one. When one of them does finally disintegrate, it is a pathetic sight to see in its last stages the weathered outlines of the ancient nesting hollows, each like a quaint gourd, persisting after the supporting tissues have perished. It was the Flicker, no doubt, who discovered, or perfected, this curative hardening process

which attends upon any exposure of the sahuaro tissue, as upon the excavation of a nest.

For the Gilded Flicker is at once janitor and high priest of the Sahuaro. It is he who prepares, with Cousin Gila (*Centurus uropygialis*), most of the lodgings, and he does this with rare and conscious foresight. Scorning for himself a second-hand dwelling, even his own, the industrious flicker delves out the nesting hollow *a year ahead*. And whenever this attractive hollow happens to please a braver or less considerate bird, a Purple Martin or an Elf Owl, the poor flicker has to delve again. And because this has happened many, many times, the patient bird just keeps on digging, so that there will surely be enough for all.

Perhaps it is for this reason, also, that the Gilded Flicker rears a much smaller family than does either of his close kinsmen, *Colaptes cafer* or *C. auratus*. Four eggs is the almost invariable rule for *Colaptes chrysoides*. Nesting is undertaken in early April, and second broods are reared occasionally, although much less frequently than is the case with the Gila Woodpecker. Flickers' eggs are crystal white, and so transparent for the first day or so that one can determine from the outside the precise stage of incubation. After that, the shells become opaque or partially discolored.

Gilded Flickers are neither as confiding nor as demonstrative as are the related species. Without cover, they must flee at the approach of danger; and there is no safe "middle distance" from which to upbraid the intruder. If there are young, however, the mother bird will return to the home tree and say, *whoo' hoo hoo, whoo' hoo hoo*, in a very anxious voice. You can have mine, birdie; I don't want 'em.

No. 206

Western Belted Kingfisher

A. O. U. No. 390a. **Megaceryle alcyon caurina** (Grinnell).

Synonym.—Commonly called plain "KINGFISHER."

Description.—*Adult male:* Upperparts, sides of head, and a broad pectoral band slaty blue (green-blue slate), the feathers chiefly with blackish shafts; feathers of crown prolonged into loose occipital crest, and these with broader black central stripes; the wing-coverts and inner primaries sharply and finely, the secondaries broadly, tipped with white; edge of wing and exposed primaries black; the primaries white-spotted centrally on outer webs, and nearly pure white on inner webs; concealed portions of tail-feathers black, sharply barred or spotted-and-barred with white; a touch of white in front of eye, and lower eyelid white; sides mingled slaty and white;

WESTERN BELTED KINGFISHER

remaining underparts pure white. Bill black, changing to yellow at base of lower mandible; feet dark with yellow soles. *Adult female:* Similar, but with sides, axillaries, and an irregular band across lower breast, cinnamon-rufous. *Immature:* Like adults, except that slaty blue band of chest is heavily mixed with rusty. Length 317.50-355.6 (12.50-14.00); wing 163 (6.42); tail 92 (3.62); bill 59.3 (2.33); tarsus 11.4 (.45). Females slightly larger.

Recognition Marks.—"Kingfisher" size; blue-gray and white coloration; piscatorial habits; rattling cry.

Nesting.—*Nest:* At end of tunnel in bank, 4 to 6 feet in, unlined. *Eggs:* 6 to 8; pure white. Av. size 33.3 x 26.4 (1.31 x 1.04). *Season:* May; one brood.

Range of *Megaceryle alcyon.*—North America and northern South America. Breeds from Mackenzie and Labrador south to southern border of the United States; winters from British Columbia, Nebraska, Ohio, and Virginia, south through the West Indies to Guiana and Colombia.

Range of *M. a. caurina.*—Western North America, east to and including the Rocky Mountains; breeding from northern Alaska south at least to southern California; wintering irregularly from British Columbia south through western Mexico and Lower California.

Distribution in California.—Common migrant both east and west of the Sierras. A common breeder in northern portion of the State and along the Sierras to Yosemite Valley and Owens Valley; also breeding and possibly sedentary south, regularly, to Santa Barbara, Santa Paula, and Santa Cruz Island. In winter common

along the sea-coast in the San Diegan district, less common northerly, at least to Tomales Bay (Mailliard).

Authorities.—Vigors (*Alcedo alcyon*), Zool. Voy. "Blossom," 1839, p. 16 (San Francisco); *Carpenter*, Condor, vol. xix., 1917, p. 22 (Escondido, breeding); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 60 (s. Calif. ids.); *J. Mailliard*, Condor, vol. xxiii., 1921, p. 194 (Marin Co., nesting habits).

WHEN we were small boys and had successfully teased our fathers or big brothers to let us go fishing with them, we were repeatedly admonished not to "holler" for fear of scaring the fish. This gratuitous and frequently emphatic advice would have been discredited if the example of the Kingfisher had been followed. Either because noise doesn't matter to fish, or because he is moved by the same generous impulse which prompts the mountain lion to give fair and frightful warning of his presence at the beginning of an intended foray, the bird makes a dreadful racket as he moves upstream and settles upon his favorite perch, a bare branch overlooking a quiet pool. Here, although he waits long and patiently, he not infrequently varies the monotony of incessant scrutiny by breaking out with his weird rattle—like a watchman's call, some have said; but there is nothing metallic about it, only wooden. Again, when game is sighted, he rattles with excitement before he makes a plunge; and when he bursts out of the water with a wriggling minnow in his beak, he clatters in high glee. If, as rarely happens, the bird misses the stroke, the sputtering notes which follow speak plainly of disgust, and we are glad for the moment that Kingfisher talk is not exactly translatable.

It is not quite clear whether the bird usually seizes or spears its prey, although it is certain that it sometimes does the latter. The story is told of a Kingfisher which, spying some minnows in a wooden tub nearly filled with water, struck so eagerly that its bill penetrated the bottom of the tub, and so thoroughly that the bird was unable to extricate itself; and so died—a death almost as ignominious as that of the king who was drowned in a butt of Malmsey wine.

When a fish is taken, the bird first thrashes it against its perch to make sure it is dead, and then swallows it head foremost. If the fish is a large one its captor often finds it necessary to go through the most ridiculous contortions, gaspings, writhings, chokings, regurgitations, and renewed attempts, in order to encompass its safe delivery within.

Kingfishers have the reputation of being very unsocial birds. Apart from their family life, which is idyllic, this reputation is well sustained. Good fishing is so scarce that the birds deem it best to portion off the territory with others of their own kind, and they are very punctilious about the observance of boundaries and allotments. For the rest, why

should they hunt up avian companions, whose tastes are not educated to an appreciation of exposed, water-soaked stubs, and a commanding view of river scenery? However, I did once see a Kingfisher affably hob-nobbing with a Kingbird, on a barren branch which overlooked a crystal stream in Idaho. I wonder if they recognized a mutual kingliness, this humble fisherman and the petulant hawk-driver?

Taken in Oregon *Photo by A. W. Anthony*

THE KING ROW

Kingfisher courtship is a very noisy and spirited affair. One does not know just how many miles up and down stream it is considered proper for the gallant to pursue his enamorata before she yields a coy acceptance; and it is difficult to perceive how the tender passion can survive the din of the actual proposal, where both vociferate in wooden concert to a distracted world. But la! love is mighty and doth mightily prevail.

The nesting tunnel is driven laterally into the face of a steep bank, preferably of sand or loam, usually directly over the water, but occasionally at a considerable distance from it. Dr. Brewer reports one in a gravel pit at least a mile from water. The birds are not so particular as are the Bank Swallows about digging near the top of the bank, but, especially if the bank is small, usually select a point about midway. The tunnel goes straight in or turns sharply to suit an occasional whim, until a convenient depth, say five or six feet, is reached, when a considerable enlargement is made for the nest chamber. Here, early in May, six or

seven white eggs are laid, usually upon the bare earth, but sometimes upon a lining of grass, straw and trash. From time to time the birds eject pellets containing fish scales, the broken testæ of crawfish and other indigestible substances, and these are added to the accumulating nest material. Sanitary regulations are not very strict in Kingfisher's home, and by the time the young are ready to fly we could not blame them for being glad to get away. The female is a proverbially close sitter, often permitting herself to be taken with the hand, but not until after she has made a vigorous defense with her sharp beak. If a stick be introduced into the nest, she will sometimes seize it so tightly that she can be lifted from the eggs, turtle-fashion.

The parents are very busy birds after the young have broken shell, and it takes many a quintal of fish to prepare six, or maybe seven, lusty fisher princes for the battle of life. At this season the birds hunt and wait upon their young principally at night, in order not to attract hostile attention to them by daylight visits. Only one brood is raised in a season, and since fishing is unquestionably a fine art, the youngsters require constant supervision and instruction for several months. A troop of six or eight birds seen in July or August does not mean that Kingfisher is indulging in midsummer gaieties with his fellows, but only that the family group of that season has not yet been broken up.

No. 207

Poorwill

No. 207 Nuttall's Poorwill

A. O. U. No. 418. **Phalænoptilus nuttalli nuttalli** (Audubon).

Description.—*Adult:* A central patch of pure silky white across lower throat; below this, in abrupt contrast, a band of black; lining of wings clear ochraceous buff; under tail-coverts clear creamy buff; the three outer pairs of tail-feathers tipped broadly but decreasingly with white or buffy white; remaining plumage an exquisite complex of skeletonized black centers of feathers with buffy and intermingled dusky markings, the whole producing a frosted or tarnished-silvery effect; black most conspicuously outcropping on scapulars and on center of crown; buffy "silvering" most complete on sides of crown, wing-coverts, and upper surfaces of tail-feathers; black of underparts appearing chiefly as bars, where also mingled with pale buffy brown; flight-feathers finely and fully banded, ochraceous and blackish. Bill black; feet (drying) dark brown; iris brown. *Young birds* are much like adults, but the ochraceous element inclines to rufescence, pale cinnamon instead of buffy; throat entirely ochraceous buff. Length 177.8-215.9 (7.00-8.50); wing 142 (5.60); tail 88.9 (3.50); bill 12 (.47); tarsus 17.6 (.69).

Recognition Marks.—Strictly towhee size, but appearing larger: smaller than a Nighthawk, which it superficially resembles in coloration. *Poorwill* cry heard a hundred times to once the bird is seen. Paler than *californicus;* darker than *nitidus.*

Nesting.—*Eggs:* 2; laid upon the bare ground; pure white (or with a faint pinkish tinge when fresh); oval to blunt elliptical-oval in shape. Av. size 25.2 x 19 (.99 x .75). *Season:* c. June 1st; one brood.

Range of *Phalænoptilus nuttalli.*—Western North America from the plains to California and from south-central British Columbia, south in winter to central Mexico.

Range of *P. n. nuttalli.*—That of the species minus the Pacific Coast district, broadly, and the southern portion of summer range (roughly Kansas to southeastern California).

Distribution in California.—Summer resident of Upper Sonoran and Transition areas east of the Sierras, from Death Valley northward, and through the northern counties west at least to Yreka, Siskiyou County. Winters in the southern portion of its range and irregularly southward over the deserts and in the valley of the Colorado.

Authorities.—Cooper (*Antrostomus Nuttalli*), Orn. Calif., 1870, p. 341 (mts., west of Colo. Valley); *Fisher*, N. Am. Fauna, no. 7, 1893, p. 51 (localities in s. e. Calif.); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 139 (Colo. Valley; occurrence, habits, crit.).

No. 207a Frosted Poorwill

A. O. U. No. 418a. **Phalænoptilus nuttalli nitidus** Brewster.

Synonym.—Brewster's Poorwill.

Description.—Similar to *P. n. nuttalli,* but paler throughout and a little smaller; the upper plumage decidedly paler and more blended; the black markings on scapulars, etc., much reduced, sometimes barely enlarged centrally. Length (skins) 182 (7.17); wing 133.8 (5.27); tail 80.2 (3.16).

Remarks.—This form, disallowed by Ridgway, appears to be clearly established by a series of specimens obtained by Grinnell in the Colorado River Valley in the spring of 1910. Although typical *nuttalli* was also present at the same time, Mr. Grinnell decided, upon dissection, that the resident breeding form was *nitidus,* and that *nuttalli* was a winter visitant only.

Range of *P. n. nitidus.*—Breeding from western Kansas south to Coahuila and west to southeastern Colorado, Lower California east of the central mountains, and in the Cape San Lucas region. Resident in the southern portion of its range.

Distribution in California.—Resident in the Colorado River valley and on the Lower Sonoran deserts of southeastern California.

Authorities.—Brewster, Auk, vol. iv., 1887, p. 147 (orig. desc.; Nueces River, Texas); *Bendire,* Life Hist. N. Am. Birds, vol. ii., 1895, p. 157 (Death Valley); *Bishop,* Condor, vol. vii., 1905, p. 142 (Witch Creek, San Diego Co.); *Grinnell,* Univ. Calif. Pub. Zool., vol. xii., 1914, p. 139 (Colo. Valley, occurrence, meas., crit.).

No. 207b Dusky Poorwill

A. O. U. No. 418b. **Phalænoptilus nuttalli californicus** Ridgway.

Synonym.—California Poorwill.

Description.—*Adult:* Similar to *P. n. nuttalli,* but darker; the black markings of scapulars, etc., larger; the black bars of underparts broader, the dusky element in

mottling strengthened on back and wing-coverts; the ochraceous element a little more pronounced throughout. Measurements about as in preceding.

Range of *P. n. californicus* (chiefly within California).—Breeds in the Upper Sonoran and Lower Transition zones in California west of the Sierras, from about Latitude 40 south to northwestern Lower California and the San Pedro Martir Mountains. Resident in the southern portion of its range and irregularly north at least to San Benito County (Paicines, Mailliard). Migrant on the Santa Barbara Islands.

Authorities.—Baird (*Antrostomus nuttalli*), Rep. Stanbury's Surv. Great Salt Lake, 1852, p. 327, part (Calif.); *Ridgway*, Man. N. Am. Birds, 1887, p. 588, footnote (orig. desc.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 158; *J. Mailliard*, Condor, vol. xi., 1909, p. 45, fig. (habits, nest, eggs; Marin Co.); *van Rossem and Bowles*, Condor, vol. xxii., 1920, p. 61, fig. (desc. nest and eggs; Los Angeles Co.).

Taken near Palm Springs *Photo by the Author*

CHOLLA CACTUS AT DESERT BASE OF SAN JACINTO MOUNTAINS
A HAUNT OF THE DUSKY POORWILL

THE SUN has set and the last chore is done, all save carrying in the brimful pail of milk, which slowly yields tribute of escaping bubbles to the evening air. Sukey, with a vast sigh of relief, has sunk upon the ground, where, after summoning a consoling cud, she regards her master wonderingly. But the farmer boy is loth to quit the scene and to exchange the

witching twilight for the homely glare of the waiting kerosene; so he lingers on his milk-stool watching the fading light in the western sky and dreaming, as only a boy can dream, of days which are yet to be. Every sense is lulled to rest, and the spirit comes forth to explore the lands beyond the hills, to conquer cities, discover poles, or scale the heights of heaven, when suddenly out of the stillness comes the plaintive cry of the Poor-will, *Poor-will, poor-will.* It is not a disturbing note, but rather the authentic voice of silence, the yearning of the bordering wilderness made vocal in appeal to the romantic spirit of youth. *Poor Will! Poor Will!* you think upon cities, actions, achievements; think rather upon solitude, upon quietness, upon lonely devotions. Come, oh, come to the wilderness, to the mystic, silent, fateful wastes! And ever after, even though duty call him to the city, to the stupid, stifling, roaring (and glorious) city, the voice of the Poor-will has wrought its work within the heart of the exiled farmer boy, and he owns a reverence for the silent places, a loyalty of affection for the wilderness, which not all the enforced subservience of things which creak or blare or shriek may fully efface.

The Poor-will spends the day sleeping on the ground under the shelter of a sage-bush, or close beside some lichen-covered rock, to which its intricate pattern of plumage marvelously assimilates. When startled, by day, the bird emits a mellow *quirp, quirp* of protest, flits a few yards over the sage-tops and plumps down at haphazard. If it chances to settle in the full sunlight, it appears to be blinded and may allow a close approach; but if in the shade, one is not likely to surprise it again. Even after nightfall these fairy moth-catchers are much more terrestrial in their habits than are the Nighthawks. They alight upon the ground upon the slightest pretext and, indeed, appear most frequently to attain their object by leaping up at passing insects. They are more strictly nocturnal in habit, also, than the Night-jars, and we know of their later movements only through the intermittent exercise of song. Heard in some starlit canyon, the passing of a Poor-will in full cry is an indescribable experience, producing feelings somewhere between pleasure and fear,—pleasure in the delightful melancholy of the notes heard in the dim distance, but something akin to terror at the near approach and thrilling climax of the portentous sounds.

Poor-wills are creatures of habit, and form very strong local attachments. Mr. Mailliard tells of a bird, at Hunter's Camp, on the Rancho San Geronimo, which tuned up regularly at eight o'clock in the evening, insomuch that when on one occasion the camp time-piece had stopped, the Hunters served supper by the Poor-will's call. Scientific veracity counsels me to add that the bird, sensing, no doubt, the humor of the thing,

rang the bell ten minutes early,—a most forgivable offense. At our Goose Lake Camp in 1912, we were serenaded nightly by a pair of these birds which were wont to spend the slumberous hours of daylight on a jasper-strewn hillside hard by. Several times we got so near to a performer that we heard a third note, a low, cutting sound, not unlike the bite of a whiplash. *Poor-will-hip Poor-will-(wh)ip.* At the conclusion of one performance the bird dropped his voice and repeated the notes with exceeding rapidity, as though he were trying to finish off his stent in a single breath. The official *poor-will* overture of the nightly operetta sometimes took place in an opening right in front of our tent. On one such occasion the bird, presumably the male, took a station on top of a post and urged his suit loudly, while his mate sat on the ground below. At the conclusion of an impassioned address, the serenader made an amatory dive at his enamorata, an overture which she deftly avoided. Then the wooer poured out his soul from another post and tried another dash; whereupon both birds set out happily together, the female in the lead, and reëchoing the male's notes so distinctly that I am quite inclined to believe she is capable of crying *Poor-will-(wh)ip* herself.

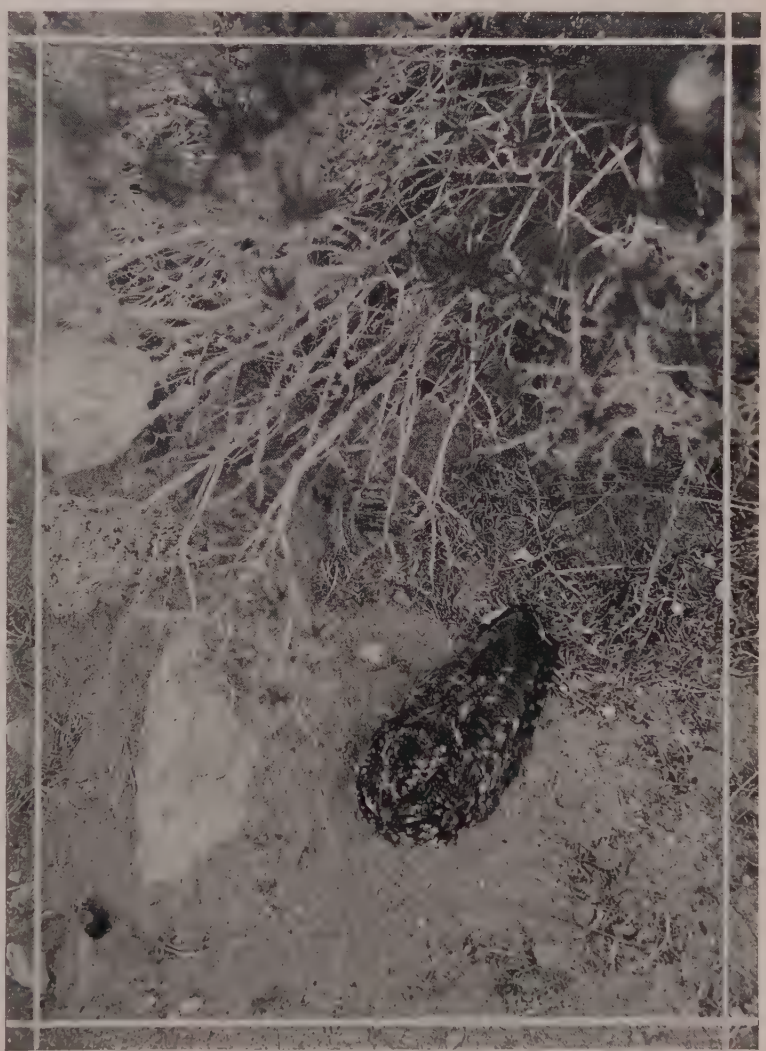


Photo by Wrigh ıM. Pierce

DUSKY POORWILL, INCUBATING

DESERT SLOPE OF THE SAN BERNARDINO MOUNTAINS

Taken in the hand, one sees what a quiet, inoffensive fay the Poor-will is, all feathers and itself a mere featherweight. The silken sheen and delicate tracery of the frost-work upon the plumage it were hopeless to describe. It is as though some fairy snowball had struck the bird full on the forehead, and from thence gone shivering, with ever lessening traces, all over the upperparts. Or, perhaps, to allow another fancy, the dust of the innumerable moth-millers, with which the bird is always wrestling, gets powdered over its garments. The large bristles which line the upper mandible, and which increase the catching capacity of the extensive gape by half, are seen to be really modified feathers, and not hairs, as might be supposed, for in younger specimens they are protected by little horny basal sheaths. With this equipment, and wings, our gentle hero easily becomes the envy of mere human entomologists.

Taken in the Ojai

EGGS OF DUSKY POORWILL, IN SITU

Photo by Donald R. Dickey

Taken at Big Bear Lake *Photo by W. M. Pierce*

THE OFFERING
PACIFIC NIGHTHAWK DECOYING FROM NEST

No. 208

Pacific Nighthawk

A. O. U. No. 420d. **Chordeiles minor hesperis** Grinnell.

Synonym.—BULL-BAT.

Description.—*Adult male:* Mottled, black, gray, and ochraceous, and with white in patches; above, black predominating, especially on crown and back, mottling falling into indistinct bars on upper tail-coverts and tail; a touch of white on edge of wing in front of alula; the wing-quills dusky, the first primary usually exceeding or at least equal to the second; a large white transverse patch just within the basal half on the first five or six primaries (merely indicated on the outer web of the first) and opposite the tip of the eighth; a large inverted V-shaped throat-patch white; the chest, in sharp contrast, chiefly black with a few tawny tips; remaining underparts distinctly and finely barred, dusky and whitish with some faint ochraceous; the crissum pure white, usually barred at greater intervals than on breast; tail notched for half an inch

or so; a white band crossing tail near tip, except on central feathers. Bill without evident bristles, the horny part very small, but length of gape about an inch. Tarsus very short, the middle claw enlarged, and with a curious, horny, comb-like process on the inner edge. *Adult female:* Similar but without white band on tail, and with white patch on primaries often much reduced; throat-patch tinged with ochraceous, and suffusion of underparts by this color more pronounced, especially on crissum. *Immature:* More finely and heavily mottled than adults, and with upperparts more heavily marked, or even suffused with ochraceous buff. Length 228.6-254 (9.00-10.00); wing 200 (7.88); tail 112.9 (4.44); exposed culmen 7 (.276). Females a little smaller.

Recognition Marks.—To appearance "little hawk" size—really smaller. Central white spot in long wing distinctive from all but *C. acutipennis texensis*, from which it requires further careful distinction. The wing of *minor* is not less "acute" but more so; but the bird is larger, blacker above, less ochraceous below; the white spot is larger, and not so near end of wing; flies higher; *mizard* (or *bayard*) notes distinctive.

Nesting.—*Eggs:* 2; deposited on the bare ground, often among rocks, sometimes upon a flat rock, or on the gravel roof of a tall building; grayish white or dull olive-buff, finely and uniformly spotted or speckled (rarely mottled or clouded) with various shades of olive, and brownish- or purplish-gray. Av. size 30 x 21.8 (1.18 x .86). *Season:* June; one brood.

Range of *Chordeiles minor*.—North America; in winter migrating through the West Indies and Central America to Argentina.

Range of *C. m. hesperis*.—The Pacific Coast district and the Sierro-Cascade system, breeding from southwestern British Columbia south coastally to Humboldt Bay, and Sierra-wise south to the San Bernardino Mountains. Winter home unknown (the form being somatically almost indistinguishable from *typicus*).

Distribution in California.—Summer resident in high Transition and Boreal zones in northern California from the Warners to the Coast, and south through the Sierras and adjacent highlands to Tulare County. Also in the San Bernardino Mountains. Probably also on the summits of the higher desert ranges north of Death Valley. Scattering appearances during migrations.

Authorities.—**Heermann** (*Chordeiles virginianus*), Jour. Acad. Nat. Sci. Phila., ser. 2, ii., 1853, p. 261 (Calif.); *Grinnell*, Condor, vol. vii., 1905, p. 170 (orig. desc.; type locality, Bear Lake, San Bernardino Mts.); *ibid.*, Univ. Calif. Pub. Zool., vol. v., 1908, p. 67 (San Bernardino Mts., habits, etc.); *Bryant*, Condor, vol. xv., 1913, p. 92 (food); *Oberholser*, U. S. Nat. Mus., Bull. no. 86, 1914, p. 46 (monogr.); *Pierce*, Condor, vol. xviii., 1916, p. 179, fig. (desc. and photo. of nest and eggs; San Bernardino Mts.).

THE NIGHTHAWK is the laggard among the western migrants, and it is always something of an event when his pouting notes, *bayard, bayard*, first break upon the stillness of the evening air. We crane our necks, too, to catch the first glimpse of the season—in mid-May, or later, according to altitude. The way of the Nighthawk in the air is, perhaps, the most varied, certainly the most eccentric, of any of the feathered kind. He seems such a frail thing, as he goes tottering and careening across the sky. We half expect to see him collapse, like a broken butterfly, or else get blown out of bounds. Now he minces along, like a school

girl; now he races to and fro in a frenzy; and now he glides along smoothly with the ease and stateliness of a gondola. He is a more dignified bat, graceful at times, but always a bit uncanny. But the "bull-bat" knows exactly what he is about, and he is playing the air game for the maximum of gastronomic profit.

Taken at Big Bear Lake *Photo by Pierce*

EGGS OF PACIFIC NIGHTHAWK, IN SITU

With a mouth like the opening of a butterfly net, and a stomach to match, this winged bug-hunter is one of the world's most successful entomologists. Everything with a pinched-in waist is grist to his mill—chinch bugs, squash-bugs, June-bugs, any old bugs. One Nighthawk stomach under examination gave up seventeen species of beetles at one time. Another, nineteen entire grasshoppers. Another, parts of thirty-eight. But if the bull-bat has a specialty, it is flying ants. Dr. Grinnell took a stomach which held 43 of our large-winged white ants (and of these some were still alive fifteen hours after capture); while Professor Beal took one individual whose crop was gorged with 1800 of a small variety.

Nighthawks are not so strictly nocturnal as are the Poor-wills, for they put a quite liberal construction on the word "twilight," and are

sure to avail themselves of all cloudy days. In fact, they move about at will whenever the sun slants fairly. The middle hours of the day are spent upon the ground, or if in timbered country, crouched lengthwise upon a tree limb. For the latter situation nature has devised a special apparatus in the shape of a comb-like process along the inner edge of the middle claw of each foot. The feet and legs being, for lack of other use, very weak, this pectination of the middle claw must be of material service in enabling the bird to retain its footing on a rounding surface of bark. It is in these hours of the middle siesta that the intricate color pattern of the plumage makes the bird appear—or rather disappear—to the greatest advantage against the variegated setting of bark or rock. A Nighthawk on the ground is all but invisible—and knows it.

The Nighthawk, or Goatsucker family (or order), the *Caprimulgidæ*, is chiefly of tropical or subtropical distribution. To those, therefore, who are familiar with the Chuck-will's-widow (*Antrostomus carolinensis*) and Whip-poor-will (*A. vociferus*) of the southeast, or even with the eastern Nighthawk (*C. m. minor*), it comes as a surprise to learn that our bird is Transitional, or even Boreal in its Californian range. I know I was

Taken at Big Bear Lake *Photo by Pierce*

AN UNUSUAL TYPE

startled to see it on July 5, 1911, charging about over the melting snow-banks at the Cottonwood Lakes (elevation 11,000 feet); though it seems I *should* have been more surprised to find it on the 19th of June at Lone Pine, where the Texas Nighthawk (*C. acutipennis texensis*) is supposed to reign supreme. In the latter instance, it is fair to suppose that the bird had only descended temporarily from the Sierran heights which command Owens Valley. Mrs. Bailey[1] once found a nest on the crest of the Sierra Nevada Range, above Donner Lake. The Pacific Nighthawk is a common breeding bird in the San Bernardino Range, and Dr. Grinnell took eggs at an altitude of 9000 feet on San Gorgonio Peak; though, singularly enough, the species is wanting in the San Jacinto Range, of almost equal elevation, immediately to the south.

While not at any time strictly gregarious, favorable conditions are likely to attract considerable numbers of Nighthawks to a given spot. I have seen dozens of birds at a time winging noiselessly to and fro over the tranquil waters of an inland lake, and on several occasions companies of from one to two hundred executing some grand march, or aerial parade, over a well-watered pasture. These convocations are not necessarily preliminary to the autumnal movement, for I once saw such an assemblage at Goose Lake, in Modoc County, on the 23rd of June (1912). It had snowed the day before, so possibly these birds had been driven in from the hills to a place of assured sustenance, much as Swallows are driven to the ponds in early spring. During migration, too, scores of these birds may sometimes be seen moving aloft in loose array, and customarily, at this season, silent.

The feature of Nighthawk life which chiefly endears him to the popular regard is the courting flight of the male. After much preliminary shifting and many emphatic *bayards* he suddenly casts himself headlong down the air in a great parabola of flight. As he turns sharply and at break-neck speed, he produces a loud booming *daw-w*—though whether by the rushing of air through the wings or across the opened mouth will, perhaps, never be determined.

The eggs of the Nighthawk are heavily mottled with slaty and other tints, which render them practically invisible to the searching eye, even though they rest upon the bare ground or, as oftener, upon an exposed and lichen-covered rock ledge. Except during the very warmest hours (when the sun's rays might addle them) and the coolest(when they might become chilled), the sitting bird is likely to rest beside her eggs instead of on them. The young birds when hatched place great reliance upon their protective coloration, and even permit the fondling of the hand rather than confess the defect of their fancied security. The old bird, meanwhile, has flut-

[1] cf. Bird Lore, Vol. V., March, 1903, pp. 43-45

tered away over the ground with uncertain wing and drooping tail to drop at last on the very point of death. Or failing in this ruse, she is charging about in midair with plaintive cries. Look upon the babies for the last time, for they will be spirited away before your return,—borne off, it is said, between the thighs of the parent bird.

No. 209

Texas Nighthawk

A. O. U. No. 421. **Chordeiles acutipennis texensis** Lawrence.

Synonyms.—Formerly called TEXAN NIGHTHAWK. BULL-BAT. MOSQUITO HAWK.

Description.—Somewhat similar in general appearance and color-pattern to preceding species. *Adult male:* Above and on breast finely mottled black, whitish, dusky, and ochraceous; throat white, chest whitish, almost entirely overlaid with ochraceous tips; remaining underparts, including crissum, chiefly ochraceous, finely barred with black and some white centrally; white patch on wing lying well outside of middle point between tips of seventh and fifth primaries, and involving first four primaries only; the first primary usually falling short of the second (hence, notably more rounded instead of more acute than *C. minor*); tail somewhat emarginate and crossed by subterminal white band, as before, the basal portion more distinctly blackish-and-ochraceous-barred. Bill dusky; legs and feet brownish, claws black, the pectination on inner edge of middle claw reduced, light brown; iris dark brown. *Adult female:* Similar to male, but without white band on tail; the patch on primaries reduced, pale cinnamon or tawny; the throat patch reduced and margined by ochraceous, or else entirely pale tawny. *Young birds:* Body plumage entirely pale ochraceous, spotted finely but sparingly with dusky. Length 203.2-241.3 (8.00-9.50); wing 183 (7.21); tail 111.5 (4.39); exposed culmen 6 (.236); tarsus 14 (.55). Females slightly smaller.

Recognition Marks.—Towhee size, but appearing larger; white spot *beyond* middle of wing; smaller, lighter, and more ochraceous than *C. minor hesperis*.

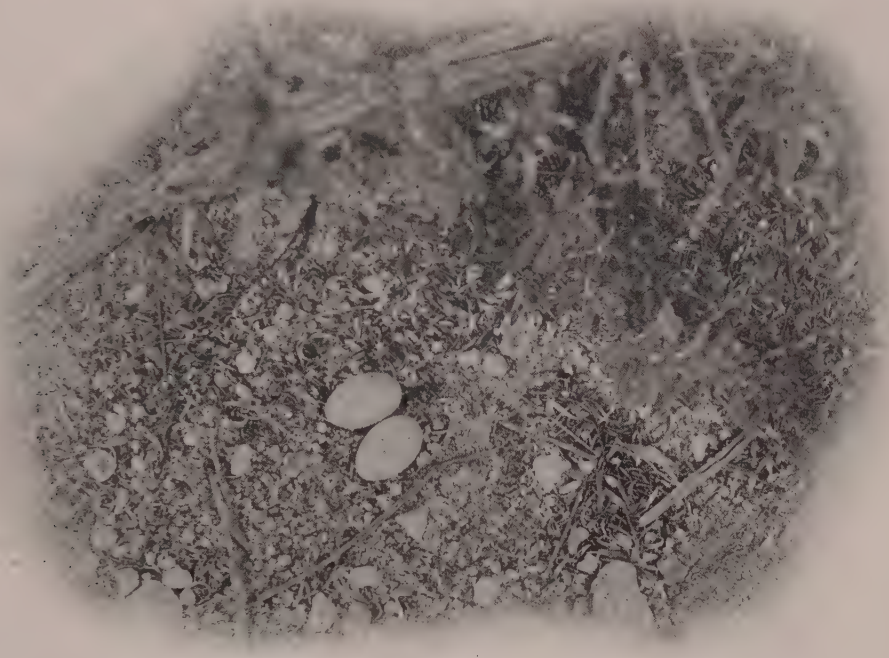
Nesting.—*Eggs:* 2; oval or elliptical-ovate; laid on bare ground, sand, or gravel of desert; dull white, rarely pale olive buffy or greenish, finely speckled (sometimes absolutely) with dark olive, dark grayish olive, and violet-gray, rarely sharp-spotted with olivaceous black and grayish olive. Av. size 26.8 x 19.6 (1.06 x .77). *Season:* May—June; Shandon, San Luis Obispo County, April 17, 1916.

Range of *Chordeiles acutipennis*.—Southwestern United States from southern Utah south through the greater portion of South America.

Range of *C. a. texensis*.—Breeds in Lower Sonoran zone, from central California, southern Nevada, southern Utah, and southern Texas, south to southern Mexico and Cape San Lucas; winters south to Panama.

Distribution in California.—Common summer resident in Lower Sonoran zone practically throughout the southern half of California. On the east side of the Sierras, north to Bishop; on the west, north to Stanislaus County, Glenn County, and (perhaps casually) Ukiah, Mendocino County. One winter record, Long Beach, Jan. 31, 1911.

Authorities.—Baird (*Chordeiles texensis*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 154 (Colo. R., Calif.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 172, pl. iii., figs. 7-10 (eggs); *Taylor*, Condor, vol. xiv., 1912, p. 222, fig. (Winslow, Glenn Co.; breeding); *Oberholser*, U. S. Nat. Mus., Bull. no. 86, 1914, p. 103 (monogr.); *Swarth*, Birds of the Papago Saguaro Nat. Mon., 1920, p. 38 (courting "song," habits, etc.).



Taken in San Fernando Valley *Photo by the Author*

EGGS OF TEXAS NIGHTHAWK, IN SITU

THE NATURE loving pilgrim camping for a night in some desert wash will have occasion to wonder at a strange burring croak which wells up out of the ground, apparently from nowhere in particular. It is a weird sound, low, monotonous, and impersonal,—drowsy, too, if one can ignore the challenge of its mystery. It is the voice of a giant frog grown weary in a waterless land. Or it is the voice of the desert itself murmuring its gratitude before the cooling touch of nightfall. Pan wakes at this hour in yonder mountain glade and summons all his satyrs to revel, but here in the desert silence reigns, silence and the sole mystery of sound. The traveler sleeps, and rousing midway of his dreams, he seems to hear two voices, two deserts answering from nowhere. But each utters the self-same silence, bidding him resign again to slumber.

The Texas Nighthawk

The most gifted imagination would scarcely ascribe this geophonic serenade to a pair of birds. But the Texas Nighthawks are responsible, as any one may learn who has the fortune to stumble upon their eggs at nightfall. The hour is important, for were the brooding bird to be disturbed in broad daylight she would merely lift over the sage-brush, flit a few yards, plump down again, and that would be the last of it. But at dusk there is more activity. The bird retires, indeed, but she summons her mate and they set up, at near ranges, always from the ground, that quaint batrachian wail, which is intended, no doubt, rather to charm than to frighten. Heard at close quarters, the note is again seen to be well sustained and nearly continuous, save that it breaks now and then to a lower note, apparently while the bird is taking breath. (This sound can be passably imitated, I find, by attempting an "Italian A" low and soft with the uvula half shut instead of wide open.) But the serenaders are ill at ease now. The sound changes abruptly to a staccato complaint, an excited clucking, breathlessly interspersed with more musical notes: *toot toot toot oo ănk ah toot toot ah wănk ah toot toot toot oo toot.* Both birds utter these notes, and as they rise and flit restlessly to and fro, or make suggestive passes at the intruder's head, they sound like flying banjos picked by unseen fingers. How unclassifiable these notes really are may be guessed from the varied attempts at description already

Taken in Merced County THE NESTLINGS *Photo by the Author*

Taken in Merced County *Photo by the Author*

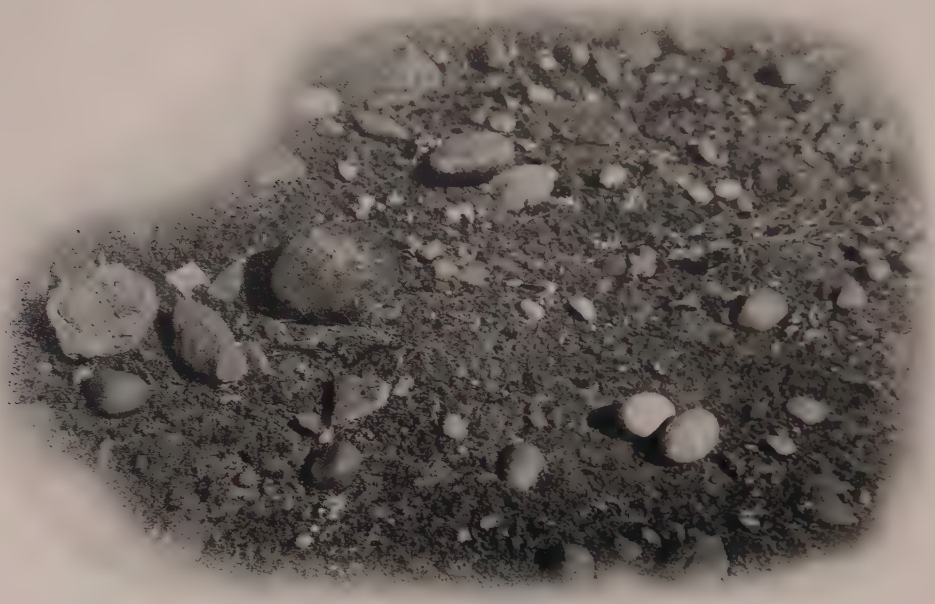
PROTECTIVE COLORATION
ONLY THE TELL-TALE EYE REMAINS TO GIVE THE CHICK AWAY

recorded. One observer speaks of the bird's "mewing," another of its "humming," and a third likens the terrestrial serenade song to "the distant and very rapid tapping of a large woodpecker."

Texas Nighthawks bear a close superficial resemblance to the more widely known *Chordeiles minor*, and their appearance a-wing is not particularly different. They are, however, less active and, above all, less venturesome on the wing. They do not favor high levels of air nor attempt the aërial stunts of *minor*, but they flit about modestly over the sage tops, or else leap up off the ground at their winged prey. Texas Nighthawks are also quite sociable, especially toward the close of the breeding season, and hundreds may sometimes be seen in favored valleys, or over such bodies of water as abound in insects. While nesting may be conducted at any remove from water, it is probable that the birds make daily visits to water-holes, and drink "hen-fashion," or else dip on the wing from some of the larger surfaces. Though they endure the extreme heat of the desert, they cannot be quite insensible to it, for they retire to Transition levels with the advancing season. The highest altitude of

recorded occurrence is perhaps that of Sugarloaf in the San Bernardinos, where Grinnell found them on August 20th, at 7500 feet.

It is doubtless improper to speak of the "nesting" of the Texas Nighthawk. Nest she has none, but her two eggs are laid upon the bare ground, and this almost of necessity is of some complexion of sand. The parched spaces between creosote bushes, where the particles of soil,



Taken near San Diego *Photo by Donald R. Dickey*

MR. DICKEY TAKES ADVANTAGE OF THE SHADOWS

although fine, are still so hot that they hate each other, are one type of bottom. The coarse granitic sand poured out of Tujunga Canyon by the winter freshets is another. The gravel beds of the desert ranges whose component pebbles are sered by volcanic acids are a third. If the eggs have any cover at all, it is the accidental shade of some scraggly bush, and when uncovered they are the very color of the ground. Or, to be exact, their ground-color is dull white or pale grayish white, rarely greenish or pinkish gray. The markings, of olive or bister, are finely comminuted (4800 pigment strokes to the square inch in one specimen in my collection), or, rarely, coarsely and sparingly spotted; still more rarely, marks are altogether wanting.

Although so careless of her eggs at first, the bird's attachment grows as incubation advances. So devoted does she become that she will suffer the intruder at three or four feet, and has even been taken by the hand. The assertion that the Texas Nighthawk does not employ the decoy ruse is incorrect, for when the chicks are hatched the mother will flutter away enticingly, like any other ground-nesting species. The young birds are much lighter in coloration than the parent, being assimilated, apparently, to the stronger lighting which prevails in summer. A baby Texas, squatting motionless in a naked stretch of alkali, is the acme of invisibility, for its warm silvery tints exhibit the very sheen of the impregnated earth. Two crops of babies are due in one season, and nesting ranges from the middle of April to the first week in August.

Oberholser, in his Monograph of the genus *Chordeiles*, gives April as the month of arrival for this species "in the southwestern United States," with an exceptional record of March 21st, and others in the middle of May. Our records would indicate that arrival during the last week in March is at least not exceptional. Dr. Grinnell saw one individual at Chemehuevis on March 9th, 1910, but did not observe another in the Lower Colorado Valley until March 27th. I saw a single bird at Long Beach on the evening of January 30th, 1911, and Mr. C. B. Linton, who was with me, agreed that it could be none other than this species. The return movement sets in in September, but October records are not rare.

The name *acutipennis* is, of course, most unfortunate, for the wing of *C. a. texensis* is not as "acute" as that of *C. m. hesperis*. While the relative length of the outer primaries is variable in both species, the outermost is longer than the next ones (hence the wing more pointed) in 85 percent of the cases in *C. minor;* while it is shorter (with the tip of the wing definitely rounded) in 75 per cent of the examples of *C. acutipennis*. Endless confusion, therefore, exists in all sight records, especially along the northern limits of this bird's range. Careful discrimination will probably show that *texensis* is gradually extending its range northward, and it may be expected to appear in time as far north as Red Bluff or Redding.

No. 210

American Barn Owl

A. O. U. No. 365. **Tyto perlata pratincola** (Bonaparte).

Synonyms.—Monkey-faced Owl. Tawny Owl. White Owl.

Description.—*Adult in medium plumage:* General color-tone ochraceous tawny (above) and ochraceous buff (below); upperparts ochraceous tawny basally and in broad irregularly irruptive edgings, overlaid with finely mottled ashy gray and dusky; the tail crossed by four or five bars of dusky, the wing quills similarly marked, or else with alternating half-bars, the inner webs changing to white; underparts ochraceous buff or pale tawny, irregularly mingled with white, and marked sparingly and diffusely with rounded or wedge-shaped spots of blackish; facial disc of feathers having a peculiarly loose, open, but stiff texture, white, but variously stained with reddish brown, purplish brown, or claret, the characteristic color concentrated in solid spot in front of eye; the "rim" of close-set, shortened feathers colored like back and eye-spot (hence epitomizing the individual tone of the specimen in hand). Bill light-colored or horny-stained, claws dark horn. *Dark extreme:* Underparts dark ochraceous tawny; color of facial disc correspondingly intensified; dusky of upperparts stronger, or not. *Light extreme:* Upperparts chiefly ochraceous buff, the dusky mottling much reduced in area and intensity; underparts pure white or barely touched with buffy, the dusky spots smaller, reduced in number, or wanting; facial disc without stain; eye-spot lighter brown. *Remark:* These variations, sometimes referred to as "phases," are held by most authorities to be independent of age or sex; but Ridgway says in a footnote: "Apparently, however, females *average* darker than males." This suggestion receives striking confirmation from a series of 25 specimens in the Berkeley museum, where the darkest specimens, four in number, are all females; and the white birds, six in number, are without exception males. Moreover, the intergradation is so perfect as to suggest that females are progressively darker and males progressively lighter with age. *Downy young* are pure white, and have strikingly elongated faces, suggesting the primitive character of this group of owls. Length of adult males: 355.6-406.4 (14.00-16.00); wing 328.6 (12.94); tail 138.1 (5.44); culmen from cere 22.1 (.87); tarsus 73.3 (2.88). Females average a little larger.

Recognition Marks.—Crow size; tawny or white coloration; rostrum (the beak with its bony support) elongated; facial disc, therefore, triangular, or heart-shaped.

Nesting.—*Nest:* A cranny in cliff or building, or burrow in bank, or natural cavity in tree; unlined, save occasionally by hair and bones cast up by bird. *Eggs:* 4 to 9, rarely 10 or 11 (24 of record); white, lusterless, ovate, short-ovate, or rarely elongate, very variable as to length. Av. of 34 California-taken specimens in the M. C. O. colls.: 42.4 x 32 (1.67 x 1.26); index 75. *Season:* March–June; January to September of record; one or two broods.

Range of *Tyto perlata.*—North and Middle America.

Range of *T. p. pratincola.*—North America, breeding from about Latitude 40 or 42, south to southern Mexico, and casually north to the northern tier of states.

Distribution in California.—Resident in Lower and Upper Sonoran life zones practically throughout the State. Northernmost record on the coast, Trinidad, Humboldt County, June 17, 1916. Also found sparingly upon the Channel Islands.

Authorities.—Gambel (*Strix pratincola*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 47 (Calif.); Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1847, p. 28 (Calif.; distr. syn., habits, etc.); *Fisher*, Hawks and Owls of the U. S., 1893, p. 132, pl. 19 (food); *Miller*, Condor, vol. xii., 1910, p. 12 (fossil); *Tyler*, Condor, vol. xvii, 1915, p. 57 (San Joaquin Valley; nest, food, habits, etc.).

IF ABILITY and worth are to count for anything, the Barn Owl, and not the Moon, ought to be the Queen of the Night. Whoever thought of calling the blear-eyed old man in the moon a "queen" anyhow? Not to mention the mistake in sex, his derelictions are notorious. He is off the job half the time, though he manages to keep the world in the dark as to his misdoings *in absentia*. He is an inveterate tippler,—that we know. I have myself seen him "take a horn"—two of them, in fact. And that he goes on a spree and gets full every month is the scandal of the heavens. He rises at irregular hours, and for days after the big debauch his friend Phoebus has to help him to bed. Away with this tradition of moonly virtues!

Taken in San Bernardino County *Photo by Pierce*

THE SIESTA

NOTE GRADATION IN SIZE OF THESE INFANTS

Taken in San Luis Obispo County *Photo by the Author*

A 'DOBE NESTING CLIFF

But consider, I pray, the merits of the Barn Owl. She is on duty 365 nights in the year. Rising punctually when the sun is well set, she sallies forth to review and regulate her realm with tireless diligence. Softer than silk, or than any similitude, are her aërial floatings. All gentle things trust her, and none save mischief-makers have aught to fear from her gentle sway.

As for her beauty, who may say that in her robes of white, overlaid with filmiest laces of the dusk and set out with burnishings of ochraceous gold, she is not, indeed, the fairest of night birds, and entitled as such to unbroken rule? Though the populace hoots, as it always has, when confronted with claims which it does not understand, and dishonors this gentle bird with such a vulgar name as "Monkey-faced Owl," on those occasions, fortunately rare, when our heroine is dragged forth into the disabling light of day, we insist that this is Beauty's self, and Aphrodite's double, appointed for the rulership of Night.

But when the "Night-bird" sings—ah, there is pause, food for meditation and regret. For, like the lordly peacock, bird of Juno, the Barn Owl

has been saddled with a most unmelodious voice. She does not know it, poor thing, and fills the night, therefore, with screeches which seem the very soul of petulance or hate. This challenge note of the Barn Owl is harsh beyond all expression, a snarling *churr*, ground out between clenched teeth. I do not know where Lewis Carroll thinks he got the name for his impossible animal, the "*Snark*"; but I suggest that it came subconsciously from the Barn Owl's cry, *snarrk*. By this sound we know that the Barn Owl is abroad, and by the sustained succession of these sounds, we judge that the Barn Owl spends more time a-wing than do any of the Strigine owls. *Aluco*[1] is a tireless quester, the buzzard of the night, pausing only, and that very frequently, when its prey is spotted on the ground. The function of the *snarrk* cry is not exactly known, although the birds do hunt more or less in pairs, and may wish to keep in touch, however distantly. It is more probable, however, that *snark* is a joy cry, and expresses the bird's delight in the prospects of the chase, or its exultation over life lived under the tipsy beams of the swelling moon.

Taken near Escondido *Photo by J. B. Dixon*

NEST AND EGGS OF AMERICAN BARN OWL

In the springtime this joy of life, or else the passion of love, urges the Barn Owl to more extended effort. Fluttering his wings softly, with head uplifted, and as it were, dancing in midair, the bird says *crick crick crick crick crick crick crick*, in a sort of ecstatic chant. Or again, the note is doubled, *witta witta witta*, in breathless cadence, while the bird drifts slowly about with no other thought, apparently, than to maintain

[1] Formerly so called.

himself aloft and voice his uttermost passion to the stars. Both of these performances are likely to occur in perfection immediately after the Owl has left the cramped quarters of his diurnal retreat, and he sees the toothsome field mice stretched out before him in unending vistas. These characterizations, I dare say, are partly local, and they may differ entirely from experiences in the East or in the Old World. I am very sure, for example, that the cries of birds heard in the summer of 1918 in northern Nevada were lighter, sharper, and clearer in quality than those to be heard in southern California. The Nevada birds, moreover, have a much more considerable repertory.

The Barn Owl is the most strictly nocturnal of all owls; that is to say, it "rises" later, and "sets" earlier, usually a good half hour before sunrise. It occupies by day, also, the darkest of available retreats; but the birds are so abundant and so well distributed that they must avail themselves of a great variety of hiding places. Buildings are in good demand, barns, attics, vine-covered porches, tank-houses, towers and belfries. Niches and tiny grottoes in the cliffs are sure of attracting Barn Owls, no matter

Taken in San Bernardino County
Photo by Pierce

WHA' Z'ASH YOU SAY?

EVEN BABY OWLS SOMETIMES IMBIBE TOO MUCH MOONSHINE

Taken in San Diego County *Photo by Dickey*

A LANGUID PRETENSE OF DECOYING

what their outlook, provided only that the local accommodations are convenient. For this reason *Tyto* occasionally figures as a seabird. Certain favored cliffs of sandstone in the inner coast ranges fairly swarm with Barn Owls, and their presence may be known by the generous smears of "whitewash" which decorate the skirts of long frequented ledges. Next after cliffs come the steep-walled barrancas, those sharp-cut discharge-pipes which gash our alluvial fans, or pursue a somber course to the sea. Here, and along the banks of rivers, the Barn Owls rest and doze "in quantities." They are able to dig their own retreats, generous tunnels driven to a depth of three or four feet, and under such circumstances are unmolested by that tyrant of the cliffs, the Prairie Falcon. Even here there is danger at flood time. A friend's friend, who happened to be near the San Juan River (in San Luis Obispo County) when the stream was on the rampage, heard a muffled crash, and looking up, saw a frantic Barn Owl emerge from a tunnel, whose innermost recess had been barely spared by the caving bank. Several other birds, to the observer's belief, were carried down helpless by neighboring disasters.

In default of more stately quarters the birds will also seek hollows in trees, while in many regions they have to comfort themselves, for roosting at least, with nothing better than thick foliage. Now and then I have startled Barn Owls from the innermost depths of Phoenix palms, and I have no doubt that our native palms of the desert (*Washingtonia filifera*) harbor their quota.

Of course the nesting places are in part identical with the roosting places. The first token of occupation, present or past, is the flamboyant

whitewash,—excrement wherein the calcium of unassimilated bone-stuffs figures predominantly. But the second token, the refuse heap, is more interesting and more instructive. Below or beside each nest is an accumulation, sometimes decades old, of mammal-skulls, fur, and feathers, in part rejected portions from the banqueting table, but chiefly pellets, or "casts," indigestible portions of food which are automatically ejected from the bird's crop when the edible portions have been released. Barn Owls are prodigious eaters, and it becomes important to examine their table and their garbage can, both qualitatively and quantitatively. As to quantity, I have seen dumps which contained not less than three bushels of material, with hundreds of skulls apparent on a superficial examination. Not even this represents the original mass, for in the older of the Aluconine kitchen middens, the lower strata have disintegrated and settled. The Barn Owl's table, too, is always set. The youngsters are not only fed diligently all night, but a generous store is laid by for daylight lunches. The poor dears are sure to need a "piece," you know! Thus, Fred Truesdale found six mice, three rats, and two gophers in a nest containing seven young. Tyler, of Fresno, found a nest containing four very small birds and six eggs, for which the following provision had been made: five Pocket Gophers (*Thomomys*),

Taken in San Bernardino County *Photo by Wright M. Pierce*

A WELL EARNED VIEW

five Kangaroo Rats (*Perodipus*), one Pocket Mouse (*Perognathus*), and two White-footed Mice (*Peromyscus*). And Finley has said:[1] "An old Owl will capture as much or more food than a dozen cats in a night. The owlets are always hungry; they will eat their own weight in food every night and more if they could get it. A case is on record where a half-grown owl was given all the mice it could eat. It swallowed eight in rapid succession. The ninth followed all but the tail, which for some time hung out of the bird's mouth. The rapid digestion of the Raptores is shown by the fact that in three hours the little glutton was ready for a second meal and swallowed four additional mice."

With this enormous capacity for destruction it becomes of real concern for us to know just what the Barn Owl eats. Exhaustive studies have been made by Government officials, studies which prove that the Barn Owl is without peer in the economic restraint of mice, moles, shrews, rats, and gophers. In its destruction of pocket gophers alone a single Barn Owl is worth from twenty to fifty dollars per annum to the State of California. When to this is added its services in destroying meadow mice of the *Microtus* group, the bird's economic value is beyond calculation.

Regarding the Barn Owl's relations to the bird world, it has to be confessed that the smaller birds do appear occasionally upon its bill of fare. The proportion of birds found in an eastern investigation, for example, was nearly five per cent. But at that the adverse count is negligible in comparison with its overwhelming services. The Barn Owl is certainly the least destructive to bird life of all owls, and we suspect that the percentage of destruction in the West is materially less than in the East. Much may be learned in this regard from the attitude of the smaller birds. Thus, the Sparrow Hawk (*Cerchneis sparverius*), which only rarely attacks birds, goes and comes unnoticed by the smaller songsters, whereas the slightest movement of the Sharp-shinned Hawk is accompanied by a wave of apprehension. The facts regarding a night prowler are more difficult to get at, for his feathered victims are presumably asleep when the silent bolt falls. All I can say is that the accidental disturbance of a Barn Owl at midday is never attended by the hue and cry which invariably follows the course of a Horned Owl, or even a Screech Owl. The birds do not recognize *Tyto* as an enemy, if he is one. Mr. Brooks, here at Santa Barbara, saw a Burrowing Owl attack a Barn Owl sharply and put him to flight, but he was probably actuated by professional jealousy. On the other hand, I once had a pretty proof that at least one song bird does not fear the Barn Owl. The Barn Owl is nothing if not methodical. For some months past a bird in returning from the nightly hunt has passed exactly over the peak of our house, and barely clearing it,—using the point,

[1]Condor, Vol. VIII., July, 1906, p. 87.

apparently, as a landmark for his southward course. A Mockingbird this past season (1918) chose a point on the eaves immediately in line with this flight (and within eight feet of my head), for his midnight and all-night serenades. Thus, Owl and Mocker saw each other every morning; and once, under a full moon, I roused in time to see *Tyto* pass squarely over the mimic's head, and that not over six feet away. Yet the Mocker "never turned a hair," nor admitted by a catch in his voice that anything unpleasant had transpired. These birds at least understood each other.

This industrious mouser is, fortunately, both prolific and abundant. In favored sections it appears to nest twice in the season, and since sets average six or eight in number—from that up to ten!—it may be seen that Mr. and Mrs. *Tyto* are not afraid of hard work. After flushing a bird from hard-set eggs I have seen a pretty pantomime. The bird returned to a point on the ledge hard by, and, fluffing its feathers to the utmost, began to flutter and prance about, as though it were trying to stand on a hot stove-lid. But this is unusual. Ordinarily the bird leaves the nest by a downward sweep, and makes off hurriedly to hide in some remembered cranny in the near neighborhood. This is especially the case if Prairie Falcons happen to be nesting on the same cliff. The Falcon is a heartless tyrant, and in this hour of his anxiety, he rejoices in a chance to vent his spite upon an innocent Barn Owl. Only luck can save the Owl. Some I have seen smashed in midair, and others merely bowled over, to rise wrathful but silent, and scramble into cover before a second bolt should fall.

Barn Owls' eggs are notably different in shape from those of other owls, being elongate or truly oval, instead of rounded, as in the *Strigidæ*. The index is 76, as against an average of, say, 83.5 for the other group. This points strongly to an ancient separation of stock. The eggs are laid upon the bare floor of a cavity, or else upon whatever chance accumulation of disintegrated pellets, or other *incognoscenda* may offer. The place is sure to be filthy, and before the youngsters are done with it, the stench is likely to be overpowering. Eggs are deposited every other day, or irregularly; and incubation begins immediately, so that the youngsters arrive seriatim, and are most accurately graded in size. The parents try to be fair, but the youngest frequently arrives too late, for what helpless infant could hope to thrive after having been stepped on, whether purposely or no, by an eighteen-day-old brother! When intruded upon, the young family will hiss like a nest of snakes, and throw themselves in various defensive postures. The babes, in their close covering of white wool, are comical looking creatures, but they do not scruple to press home a set of claws which are sharp as needles; so perhaps it is just as well not to try to chuck them under the chin. The older birds will fight like demons

when closely pressed, and one soon comes to see what a powerful as well as alert foe the wicked gopher has to fear. Their feeding habits, also, are not fastidious. The rending of a rat carcass would be a terrifying sight if the birds were, say, a hundred times as large. The head of the victim goes down first, probably because the brains are the most delectable morsel, and the rest follows piecemeal, "hide, horns and hair." But the case is not hopeless, for punctual to the minute the skull reappears, and later the clothes of the late lamented, done up in a neat package. *Thomomys*, he of the tireless tooth, who loves our choicest vegetables and most expensive flower-bulbs, he shall have, thus, a befitting monument,—the skull and bundle. Hail, beneficent deliverer! Queen of the Night!

Taken in San Bernardino County *Photo by Wright M. Pierce*

SHAKE HANDS!

No. 211

Long-eared Owl

A. O. U. No. 366. **Asio otus wilsonianus** (Lesson).

Description.—*Adult:* Above finely mottled white and dusky, with apparently half-concealed ochraceous on subterminal margins of feathers, the design broadened on wings,—ochraceous, white, and dusky in patches; the wing-quills and tail distinctly barred—dusky with ochraceous basally, dusky with gray terminally; ear-tufts conspicuous, an inch or more in length, black centrally, with white and ochraceous edges; facial disc tawny; region about base of bill, or at least chin, white; blackish about eyes on inner sides, the edges, especially on forehead, finely mottled with black and white; tibiæ, tarsi, and feet pale tawny, immaculate; remaining underparts white, ochraceous, and dusky, in bold, free pattern, and upper breast distinctly and heavily streaked, the sides and flanks distinctly barred, the belly exhibiting a combination of the two types; lining of wing pale tawny, unmarked basally, save for a dusky patch on tips of coverts, heavily barred distally. Bill and toe-nails blackish. The folded wings exceed the tail, and the bill is nearly concealed by black and white bristles. *Nestlings:* Everywhere, except on head and lining of wings, finely barred dusky and gray or ochraceous. Length 330.2-406.4 (13.00-16.00); wing 285.8-304.8 (11.25-12.00); tail 146.1-158.8 (5.75-6.25); bill from nostril 16 (.64); tarsus 38.1-45.7 (1.50-1.80).

Recognition Marks.—Little hawk to crow size; a strongly marked and unmistakable species; the "horns" taken in connection with its size are sufficient to identify it.

Nesting.— *Nest:* Usually a deserted nest of crow, magpie, heron, etc.; sometimes in rock-rifts or even on the ground. *Eggs:* 3 to 6; subspherical, white (or not infrequently red-spotted with nest-marks). Av. size 40.6 x 32.8 (1.60 x 1.29). *Season:* February –May; one brood.

Range of *Asio otus.*—Eurasia and temperate North America.

Range of *A. o. wilsonianus.*—Temperate North America; breeding from southern Mackenzie, Quebec and Newfoundland, south to Virginia, Arkansas, northern Texas, and southern California; wintering from southern Canada, irregularly south to central Mexico.

Distribution in California.—Locally resident, chiefly in interior valleys, on the oak-covered foothills, and along wooded streams of the Upper Sonoran zone, south (at least formerly) to San Diego. Sparingly resident on the Santa Barbara Islands (Catalina and San Clemente), and an occasional invader of the higher mountains: White Mountains at 10,500 feet, May 26, 1919; San Jacinto Peak at 9000 (Grinnell and Swarth); San Bernardinos at 7000 (Willett). Numbers augmented in winter, at least in San Diego district and on the edges of the deserts (Palm Springs, Jan. 28, 1913).

Authorities.—Baird (*Otus wilsonianus*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 53 (Bodega, Calif.); *Bendire*, Life Hist. N. Am. Birds, vol. i., 1892, p. 328, pl. 12, fig. 2 (egg); *Fisher*, Hawks and Owls of the U. S., 1893, p. 140, pl. 20 (food); *Tyler*, Condor, vol. xv., 1913, p. 17 (San Joaquin Valley, desc., nest and eggs); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 58 (s. Calif. ids.).

BEING strictly nocturnal in habit, and comparatively silent so long as undisturbed, this Owl would almost pass from our ken were it not for the easy opportunities afforded by the nesting season. Although

Taken in San Luis Obispo County *Photo by the Author*

BRISTLING IN DEFENSE

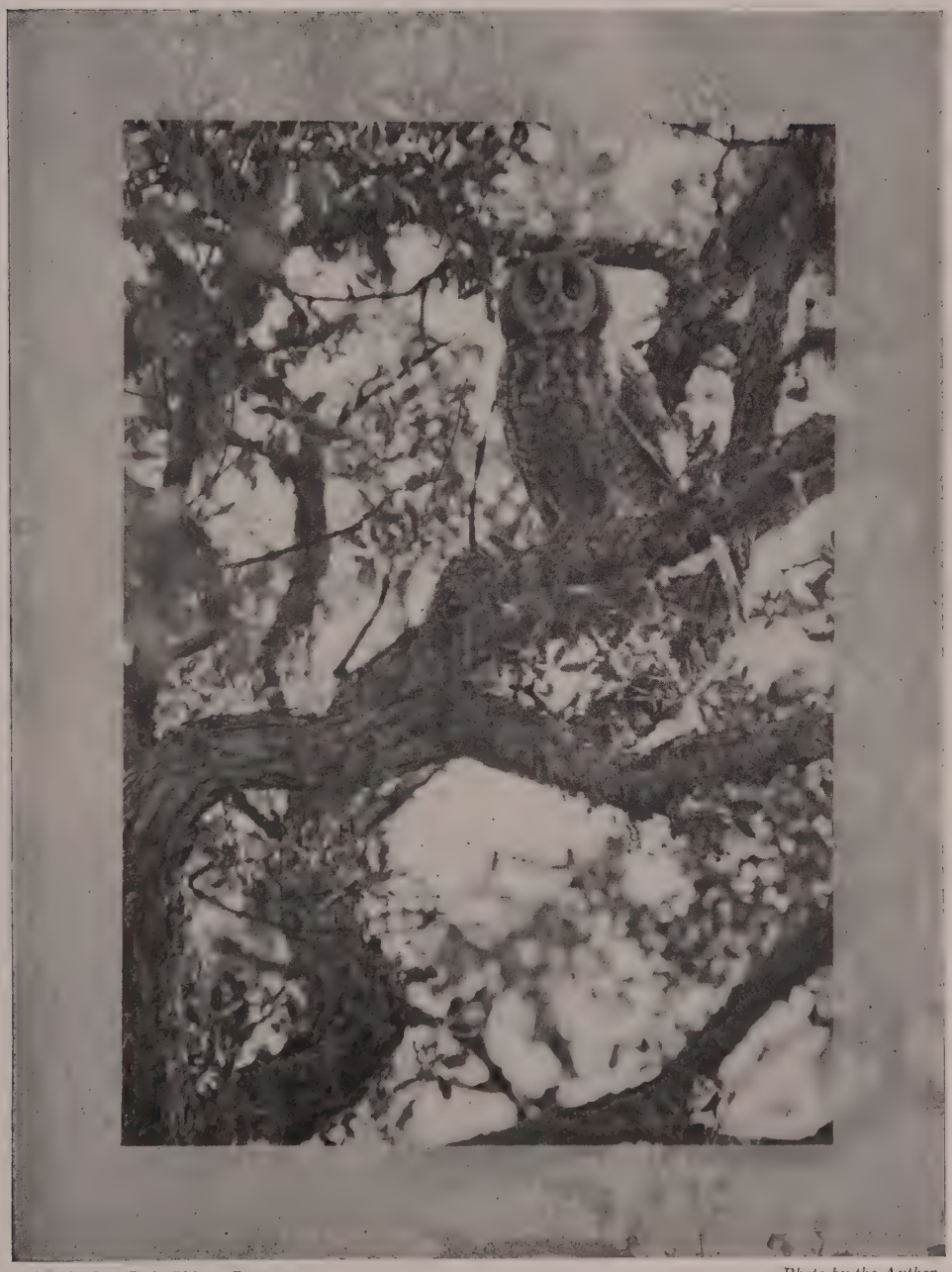
it is really fairly common throughout the state, and nests regularly in live oaks and evergreens, it is only in the neighborhood of open country, and especially along the borders of willow-lined "Sonoran" streams, that it may be studied to advantage. Here, in March or early April, one frightens the male, or "bull" Owl, from some thicket of willow limbs or cottonwood; and, if he is wise, he immediately casts about for the nearest nest, no matter how dilapidated, of Crow or Magpie. And here, above the melee of crisscross sticks, themselves like sticks, save as betrayed by the breezes, may be seen the faintly waving plumicorns of the female, sitting very close. Only those who have been there, know what a treat is in store. My first experience came on the shores of Lake Chelan. A likely looking Crow's nest, ten feet up in a willow clump, tempted inspection. Upon my approach an Owl slipped noiselessly from the nest and left me to plan the ascent through an ugly tangle of saplings. As I started in I heard the overture of a caterwauling contest, just as when Thomas remarks, "*We-a-o-o-a-ow*," and Nature catches her breath

Taken in Washington *Photo by the Author*

A NESTING SITE
MAMA LONGEARS IS ON DECK

to hear what Maria will say. I paused and canvassed the morale of my contemplated action; then hastily reviewed the chances of wild-cats; and then reached for my gun. Not until I had actually *seen* the mother bird, for it was she, emitting one of those gruesome squalls, could I believe that the noise came from an Owl. Even after doubt was at rest, the cry seemed not less like the snarl of an angry feline. To add to the terrors of the defensive, the husband and father came up and literally proceeded to spread himself. Wings and tail were spread to the utmost, and every feather was ruffled to the fullest extent,—all in a manner calculated to strike terror to the boldest heart. The bird-man managed to control his nerves long enough to note five eggs —but of what color deponent saith not—then hurriedly sought more congenial company.

The notes of the Long-eared Owl are a fascinating study. The call note, oftenest visualized as the conventional "hoot," is scarcely that, but is something softer, tenderer, and more subdued. After the courting season, the male employs this sound to comfort his mate upon the nest. Once we camped at the foot of a cottonwood tree which contained a nest of this bird, and as often as we waked in the still watches, we heard



Taken in San Luis Obispo County

Photo by the Author

"WE VIEW WITH ALARM"

that low crooning note, tender and mellow, and, above all, *piano*, as it was repeated simply and monotonously at intervals of four or five seconds all night long. The same note is used, also, to admonish the babes or to encourage them before the presence of that dread monster, man.

Taken in San Luis Obispo County *Photo by the Author*

THE SKIRT DANCE
THE MENACE AT ITS UTMOST HEIGHT

Then, besides the cat-fight noises, already mentioned, and which constitute a separate cataclysm of sound, there is the regular note of disapproval, a sort of groaning execration used chiefly by the male, *Morach moraaaoow, werek werek wraaow, wreek wraaa*—all very "flat" and very emphatic.

A fourth note is so unusual, or at least so little understood, as to have escaped general comment.[1] In May, 1907, when our party was camped on the Walla Walla River, in Washington, I first made its acquaintance. I was seated at the time in a willow tree, at a height of twelve or fifteen feet from the ground, beside a nest of young Long-eared Owls, one of a line of four nests which I had been watching for several

[1] See the author's article in point, Condor, Vol. XVI., March, 1914.

days. The youngsters were freezing faithfully, as usual,—all save the runt of the brood who still favored the cowering pose. The male parent had delivered himself of his quaint objurgations, and had retired from the scene in disgust. The female had caterwauled and cajoled and exploded and entreated by turns, all in vain. Matters seemed to have reached an *impasse*, and silence had fallen over the landscape. I had time to note the sage pinks, bright with morning dew, and the subtle, soothing, gray-greens of the sage itself, as it rose in billows over the slopes of the closely-investing hills. All of a sudden the Owl left her perch, flew to some distance and pounced upon the ground, where she could not well be seen through the intervening foliage. Upon the instant of the pounce, arose the piercing cries of a creature in distress, and I, supposing that the bird in anger had fallen upon a harmless Flicker

Taken in Washington *Photo by the Author*

BABY MOUSERS

which I knew dwelt in that neck of the woods, scrambled down instanter and hurried forward. The prompt binoculars revealed neither Flicker nor mouse. There was nothing whatever in the Owl's talons. The victor and the victim were one and the same, and I was the dupe. Yet so

completely was the play carried out that the bird fluttered her wings and trod vigorously, with a rocking motion, as though sinking her claws deeply into a victim. I was astounded. Nor should I believe the evidence of my own eyes to this day, if I had not witnessed the same play repeatedly thereafter. The Owl thought she had me going, and I humored her to the point of absolute personal satisfaction. There was never a trace of fur or feathers or gore on the deserted stage. The distress cries, always convincing, were never overdone, but ceased, as they should, after the first onslaught. Yet if I did not yield a prompt obedience to the lure, the Owl looked about reproachfully and then redoubled her demonstrative wrestle with her alleged quarry.

Taken near San Diego *Photo by Dickey*

A MENACE IN PIN-FEATHERS

IT IS TO LAUGH; BUT WE MAY SUPPOSE HIS LITTLE HEART IS QUAKING

It was noteworthy in this connection that while other birds usually paid little heed to the notes of this Owl, however terrifying in volume or tone, this distress cry commanded instant attention throughout the woods. The small birds began to chatter sympathetically, while Crows and Magpies rallied as though at the blast of a bugle. In fact, some nimble Magpie, as often as not, interrupted the play before it was half finished. This was the clew, if clew were needed, to the explanation. Your humble servant was a big Magpie, who at the sound of conflict might be expected to rush forward and snatch the prize from the victor's grasp. Clever, wasn't it? And,

parenthetically, your Magpie is evidently exactly up to that game, even if the stupid man failed to play to his lead.

The illusion of this decoy ruse (whose further psychology I leave who will to explicate) was most complete; and even inside knowledge of the facts could not lessen the wonder how the Owl could so perfectly reproduce the shrieks of former victims.

ANOTHER ALARMED VIEWER

Taken near San Diego
Photo by D. R. Dickey

The Long-eared Owl enjoys a high reputation as a mouser, and has been passed with honor by the examining board of governmental experts. He does occasionally prey on birds, but there can be no question of his over-balancing services. Most especially this milder-toothed and very fascinating fowl deserves to be distinguished from his dread cousin, the Great Horned *Bubo*.

No. 212

Short-eared Owl

A. O. U. No. 367. **Asio flammeus** (Pontoppidan).

Description.—*Adults:* Ear-tufts very short—scarcely noticeable; entire plumage, except facial disc, nearly uniform buff, ochraceous-buff or cream-buff, striped or mottled with dark brown,—heavily above and on breast, the stripes becoming more narrow on belly and disappearing altogether on legs and crissum; edge of wing white; the wing-quills and tail-feathers broadly barred with brownish dusky; the facial disc gray centrally, with black around each eye and on the bridge. Bill and toe-nails dusky blue; eyes yellow; ear-opening enormous, but fully concealed. *Immature:* Dark brown with ochraceous tips above; brownish-black face, and unstriped underparts. Length 355.6-406.4 (14.00-16.00); wing 304.8-330.2 (12.00-13.00); tail 139.7-158.8 (5.50-6.25); bill from cere 17.2 (.68); tarsus 44.5 (1.75). Adult female larger than male. The preceding measurements include both sexes.

The Short-eared Owl

Recognition Marks.—Little hawk to crow size: general streaked appearance, dark brown on buff; inconspicuous ear-tufts; semi-terrestrial habits.

Nesting.— *Nest:* On the ground or at the end of a short under-ground tunnel: a few sticks, grass, and feathers mark the spot, or else the bird lays on the bare earth. *Eggs:* 4-9; subspherical. Av. size, 39.9 x 31.2 (1.57 x 1.23). *Season:* April; one brood.

General Range.—Nearly cosmopolitan. In North America breeds irregularly south from northern Alaska and Greenland to California, Kansas, and Massachusetts; winters casually from the milder-climated of the northern states south to Guatemala. Resident in the Hawaiian Islands.

Distribution in California.—Common migrant and fairly common winter resident in marshy or open situations, chiefly west of the Sierras. A rare breeder in the larger marshes—definitely recorded from Los Baños (Bishop) and New Hope, Fresno County (Tyler); inferentially from San Diego, San Pedro, and San Francisco Bay.

Authorities.—Heermann (*Otus brachyotus*), Jour. Acad. Nat. Sci. Phila., ser. 2, ii., 1853, p. 261 (Suisun, Calif.); *Miller*, Condor, vol. xii., 1910, p. 12 (fossil); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 48 (San Joaquin Valley, breeding habits).

IN SECTIONS where all three birds are common, a rough-and-ready division of territory has been agreed upon by the Long-eared, Short-eared, and Burrowing Owls—*Owlia est omnis divisa in partes tres.* To the Long-eared Owl has fallen the right to search groves, thickets and piney woods; to the Burrowing Owl belong all pastures and the open sage; whilst the Short-eared has chosen meadows, rye grass areas, swampy bottoms, and all expanses of rush and reed. This equitable arrangement regards, of course, only Owls, for the last-named species has always a keenly contesting rival of his claims in the person of the Marsh Hawk, or Harrier (*Circus c. hudsonius*). So sharp has the rivalry become, to interpret the situation fancifully, that the Owl, no longer content with a monopoly of the night rights, hunts over the contested preserve on all cloudy days, and on some bright ones as well. Indeed, he has almost forgotten the family tradition which enjoins upon all good Owls careful avoidance of sunlight, and seems not at all disconcerted thereby.

Let no one suppose that because the bird under consideration has abbreviated ear-tufts, he is anywise "short" on hearing. On the contrary, his ear-parts are enormously developed. Part the feathers on the side of the head, bringing the ear-coverts forward, and you will see it, an ear-opening some two inches long—as long, in fact, as the skull is high, and proportionately broad.

It is more than a coincidence that these marsh prowlers, the Harrier and the Short-eared Owl, should be provided with such a remarkable auditory apparatus. When one considers the circumstances of their life, the reason for this common provision becomes very plain. In a thicket of reeds, especially if they be dry, one hears a great deal more than he

is able to see. Movement through grass or tules without noise is almost an impossibility, even for the tiniest bird or mouse. Hence, it becomes important to locate any creature in the tangle by hearing. Surely a Short-eared Owl could hear the footfall of a beetle at a hundred yards!

Short-eared Owls are somewhat hawk-like in their appearance, whether quartering to and fro across the meadows, or watching from a convenient post. There is more flapping of wing than in the case of the Marsh Hawk, but the movement is absolutely noiseless, being hushed by the soft plumage of the axillaries and under wing-coverts. Now and then the bird, tiring of an exclusive swamp diet, goes poaching. Taking up a station upon the ground, it silently awaits the appearance of some timid gopher, which the Burrowing Owl has overlooked. In securing its smaller victims, the Owl does not pounce and tarry, but snatches in mid-flight, falcon-fashion, and retires to some favorite perch to eat.

Its food consists largely of meadow mice, gophers, and other rodents, supplemented by grasshoppers, crickets and beetles, with now and then a small bird. So great are its services to the rancher, and especially to the hay-maker, that the owner may well count it a piece of good fortune when a pair or a colony of them take up quarters in the alfalfa field. Better run the mower carefully around every nest than to suffer the *microtus* mice to continue their work of devastation.

These birds are largely resident in winter and migratory in suitable localities throughout the State. While not gregarious, after the fashion of Blackbirds, they are likely to pause during migrations in especially attractive places, irrespective of previous occupants, so that it is no rare sight to see a dozen or a score of them hawking about in a single swamp. Once in some stubble fields near Fresno, Mr. John G. Tyler encountered unusual numbers of certain associated Raptors, and estimated that there were not less than two hundred Short-eared Owls in sight at one time, all hunting busily. Some few remain to nest, at least as far south as Fresno; and there are reports, persistent but unconfirmed, of their nesting in Los Angeles County. They are usually seen in pairs at all seasons; and Bendire considers that they are mated for life. Housekeeping is of the humblest, home being a mere shake-down of grass somewhere upon the ground; and it is only when the nest is threatened that the birds muster "a weak whistling sort of note."

No. 213

Spotted Owl

A. O. U. No. 369. **Strix occidentalis** (Xantus).

Synonyms.—Western Barred Owl. Xantus's Owl. Hoot Owl. Wood Owl.

Description.—*Adults:* Above warm brown, spotted with white and varied, slightly, by ochraceous, the spots rounded on head and back, broader on cervix and wings; the quills and tail irregularly spotted, or broken-barred, with dull ochraceous or pale brown, irregularly changing to white; sides of breast much like back, the remaining underparts dull ochraceous boldly spotted on middle of breast and on belly and sides with white, and irregularly marked, or herring-bone-barred, with warm brown; the flanks, legs (including tarsi), and wing-linings with very little white, mottled or faintly barred brownish and ochraceous instead; feathers about base of bill chiefly white with brownish black shafts; facial disc behind and above eye dark ochraceous, faintly concentric-barred with dark brown; the rim of disc darker brown (nearly bister) on inner aspect, finely mingled brown, ochraceous and white on outer aspect (thus curiously epitomizing the whole color scheme). Bill bluish dusky basally, changing to yellow on tip; claws light brown. *Nestlings:* Chiefly pale brownish buffy, broadly barred except on head and legs with light brown. Length of male about 466.09 (18.35); wing 320 (12.60); tail 215 (8.47); bill from cere 21.3 (.84); tarsus 59 (2.32). Females average larger; length up to 482.60 (19.00).

Recognition Marks.—Crow size; rounded appearance of head; strikingly white-spotted; smaller and without "horns," as distinguished from Pacific Horned Owl.

Nesting.—*Nest:* Usually an old Raven's nest, lodged in cranny of cliff; in default of such bird probably uses unlined cranny, much after the fashion of *Bubo virginianus*. *Eggs:* 2 or 3; subspherical, white. Av. size 47.75 x 40.6 (1.88 x 1.60) (Peyton). *Season:* March–April; one brood.

General Range.—Western North America from northern Mexico and northern Lower California north along the coast to British Columbia, and in the mountains to southern Colorado.

Distribution in California.—Not common resident in Upper Sonoran and Lower Transition zones west of the Sierran divide. Most common in San Diegan district.

Authorities.—**Baird** (*Syrnium nebulosum*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 921 (Ft. Tejon); *Xantus*, Proc. Acad. Nat. Sci. Phila., vol. xi., 1859, pp. 190, 193 (orig. desc.; type locality, Ft. Tejon); *Swarth*, Univ. Calif. Pub. Zool., vol. vii., 1910, p. 3 (desc. juvenal; crit.); *ibid.*, Condor, vol. xvi., 1915, p. 15 (desc., meas., crit.); *Dickey*, Condor, vol. xvi., 1914, p. 193, figs. (desc., photos, etc.; Ventura Co.); *Oberholser*, Proc. U. S. Nat. Mus., vol. 49, 1915, p. 251 (syst.; monogr.).

EVEN the sight of a Spotted Owl is counted a bit of a rarity in these parts; and specimens taken are still dutifully reported in the columns of the "Condor," or elsewhere. Yet when the great day comes, the bird of mystery is likely to prove as obliging as a well-bred hen—or shall we say as a sleepy rooster? It may be his favorite roost that we

have blundered upon, all in a shady dell, unfrequented of men. There is no need for anxiety. The bird is mildly curious himself, and not in the least alarmed. His aspect is anything but ferocious—benevolent, rather—and he looks for all the world like some patriarchal gnome disturbed at his slumbers, yet not resentful. We vote him handsome at the first breath, and admiration grows as we dwell upon the sleekness, the mellow rotundity, and the exquisite harmony of the figure, and especially of the costume before us. Spotting suggests the conspicuous, and this bird is spotted with white from head to foot, on a background the deepest of wood-browns; and yet the pattern blends in so perfectly, is so essential a part of the checkered sunlight falling upon branch and leaf beside him, that we say, "Why, of course. How could he be any different?" Whereas, an object merely brown or merely white would stand out here like a sore thumb, this camouflaged statuette almost disappears under the searching eye. We must circle about him to coax an inclination of the head, or a tell-tale movement of the foot. Now and again the benignant creature winks prodigiously, and the ladies with us shriek with laughter. Silly things! The bird is not winking at *them*. He was up late last night and the sun hurts his eyes, that's all.

Taken in Los Angeles County
From a photograph, Copyright 1921, by Wright M. Pierce

THE BIRD IS MILDLY CURIOUS HIMSELF

Our knowledge of the Spotted Owl is chiefly derived from two accounts of their nesting which have appeared in the columns of the "Condor." The first of these, by Mr. Lawrence Peyton,[1] tells of the discovery, in 1908, of a nest situated in Castaic Canyon, in a hole on the face of a perpendicular granite cliff, and at a point about fifteen feet up. From

[1]Condor, Vol. XII., July, 1910, pp. 122, 123.

Taken in Los Angeles County
From a photograph, Copyright 1921, by Wright M. Pierce
"WE VOTE HIM HANDSOME"

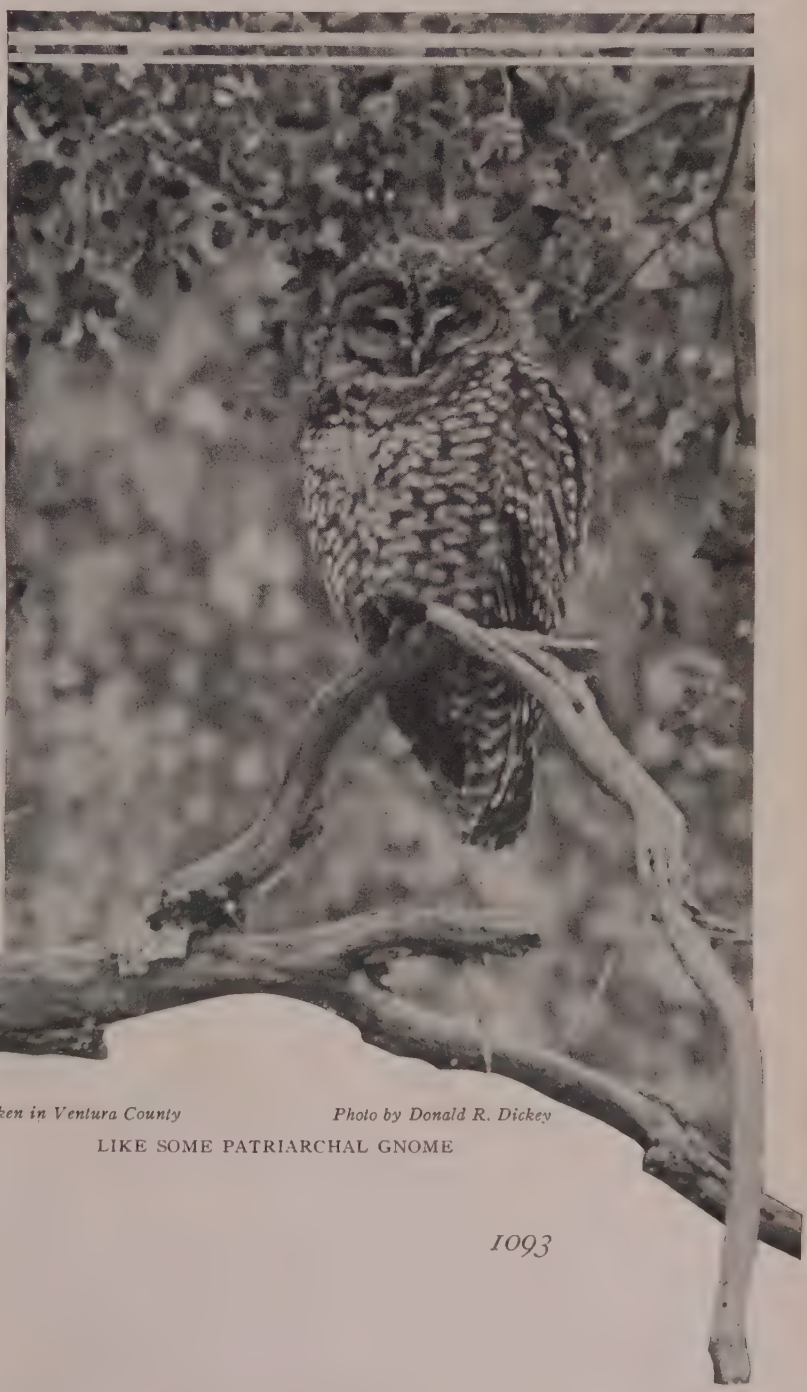
this nest a set of two eggs was secured April 1, 1909, and a set of three, with the parent birds, March 30, 1910. On the 15th of May, 1913, Mr. Donald R. Dickey[1] with two assistants, working in the mountains of Ventura County, found a Spotted Owl's nest which contained two well-grown young. The situation was an old Raven's nest, placed 65 feet up in a pothole, on a perpendicular cliff of conglomerate over 200 feet high. Fortunately the nesting-site was commanded by trees, and the old birds were very accommodating, as our accompanying illustrations show. Indeed, the behavior of the old birds throughout the period of Mr. Dickey's study was a compound of fearlessness, confidence, and placid

Taken in Ventura County *Photo by Dickey*
A FEATHER-BED BABY

[1] Condor, Vol. XVI., Sept., 1914, pp. 193-202.

indifference. The all-important business of an Owl's daytime hours is slumber; and it was politely assumed that no gentleman would wish to do anything which would seriously interfere with that pleasant occupation. Will you look at the babies? Oh! very well; but only let us sleep.

Safely ensconced in a neighboring fir tree Dickey makes the following observations on the morning toilet of the mistress: "Contorting herself into every conceivable position, she shook her feathers into place and carefully preened away every frayed feather tip. There was something ludicrous in her every action. Even in the midst of her toilet, there were sudden periods when Morpheus seemed to overpower her, and she would doze off, only to awake with a start a few minutes later and continue the performance. Her movements were much more gentle than those of the Horned Owls. The lack of their ear tufts and yellow irides also gave her a far more agreeable expression, although I must confess that certain startled expressions,—when one did succeed in startling her,—seemed unpleasantly lynx-



Taken in Ventura County *Photo by Donald R. Dickey*

LIKE SOME PATRIARCHAL GNOME

like. When she moved along a limb her every movement suggested a parrot, really a striking resemblance."

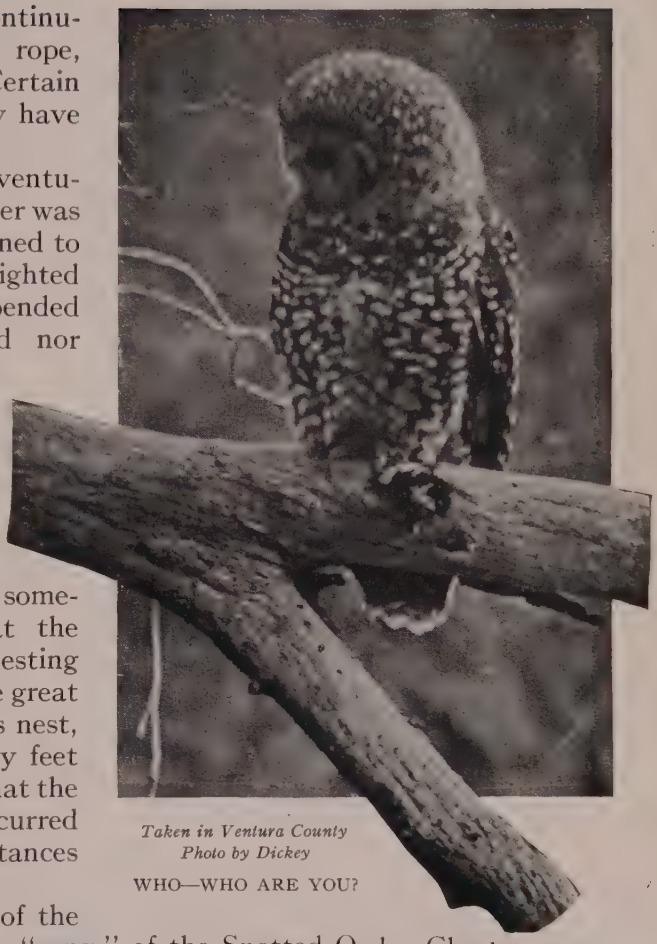
Not satisfied, however, with these distant views, and finding their tackle too short to reach the nest from above, the scientists left a rope dangling and travelled over night to town for more apparatus. Returning, they found serious changes: "Picture the three grim cliff scalers with their five hundred feet of rope riding up and finding the owls not on the ledge at all, but come to meet them! It was really as bad as that, for there, in an insignificant oak across the ravine, sat the two youngsters with their parent. All three were well within the reach of any six-year-old boy. They were distant a hundred yards or so from the nest, and the hillside rose so steeply on that side that they were almost level with the nest although not over fifteen feet from the ground. That the young could have reached the spot unaided seems incredible, for although the primaries were well grown out, they were, with that exception, in the complete down, and were still weak. The

Taken in Ventura County *Photo by Dickey*

"THAT THE YOUNG COULD HAVE REACHED THE SPOT UNAIDED SEEMS INCREDIBLE"

alternative is that the old birds, continuing their distrust of the dangling rope, had deliberately moved them. Certain it is that they would not normally have left the nest perhaps for weeks."

One of these young birds was eventually required for science; but the other was dutifully and at much hazard returned to the nest, whereupon the parent alighted within eighteen inches of the suspended ornithologist, and neither offered nor feared molestation. The scientists had the satisfaction of seeing the old birds accept the situation and attend their remaining offspring the following day *in situ*.



Taken in Ventura County
Photo by Dickey

WHO—WHO ARE YOU?

On April 5th, 1914, I found a nest in western Kern County in a somewhat similar situation, save that the country was entirely open, and the nesting cliff faced the treeless expanse of the great Central Valley. The young in this nest, an old Raven's, upon a ledge thirty feet up, were more than half grown, so that the deposition of eggs must have occurred much earlier than in the instances enumerated.

There is no clear-cut account of the notes, and especially of the mating "song," of the Spotted Owl. Clay[1] enjoyed a midnight serenade wherein the birds produced a "ghostly racket," preceded by a long-drawn-out whining, which gradually increased to a grating sound. In this performance two birds, attracted, no doubt, by the light, ventured upon a limb within three feet of the inquisitive student. Peyton[2] likens the call of the male to the distant baying of a hound, and Dickey[3] confirms this estimate. The last-named authority gives the adult cadence as *whoo, whoo, who, who*, the first two syllables being noticeably longer than the others. The note of anxiety is given as a "low, musical indrawn whistled '*Whee ee*'," followed later by an "indescribable turkey-like chuckle." A concert attended by the author,

[1]Condor, Vol. XIII., p. 75.
[2]Loc. cit., p. 122.
[3]Loc. cit., p. 200.

near Ukiah, and attributed by elimination to this bird, was characterized by considerable variety of inflection. The *hoot* notes were "narrower" and higher-pitched than those of a Horned Owl, and their utterance seemed to follow no definite order: *Hoó ah hoó ah*, and again, *hoó ah hoo hoó ah*.

Little is known, either, of the food habits of this rare Owl. Dickey found rather scanty remains of mice and brush rats at the Owl's nest, and saw feathers of Crested Jays which he attributed to a Strigine banquet. Curiously, however, two instances are on record where remains of Pygmy Owls, *Glaucidium gnoma*, have been found in the stomachs of recently killed Spotted Owls. Evidently there is scant courtesy among brigands.

No. 214

Great Gray Owl

A. O. U. No. 370. **Scotiaptex nebulosa nebulosa** (Forster).

Description.—*Adult:* No ear-tufts; general plumage mottled — dusky, grayish brown, and dull whitish — darker above, lighter below, where the dusky markings are indistinctly longitudinal on breast and belly, and transverse on flanks; the whitish impure and with a fulvous element on the margin of the facial disc, hind-neck, wings, tail, etc.; wing-quills and tail irregularly barred, dusky and mottled gray; facial disc about six inches across, light gray, with numerous dusky lines imperfectly concentric about each eye; the edge of the disc dark brown and fulvous, and with more white below; the eyes bordered by black on the inner margin; iris yellow. Bill pale yellow; claws bluish dusky; feet and toes heavily feathered. Length 635-762 (25.00-30.00); wing 406.4-457.2 (16.00-18.00); tail 279.4-317.5 (11.00-12.50); bill with cere 35.6 (1.40).

Recognition Marks.—Size largest—Brant size; gray face; absence of ear-tufts will immediately distinguish it from the Horned Owls.

Nesting.— *Nest:* Of sticks and moss, lined sparingly with down, placed high in trees, usually coniferous. *Eggs:* 2-4; white. Av. size, 54.9 x 43.4 (2.16 x 1.71). *Season:* April–June, according to latitude; one brood.

Range of *Scotiaptex nebulosa.*—Northern portion of Northern Hemisphere.

Range of *S. n. nebulosa.*—Boreal North America, breeding from central Keewatin and central Alberta north to the limit of trees, and rarely south along the Cascade-Sierra mountain chain to the Yosemite sector. South irregularly and rarely in winter into the northern or north-central states.

Occurrence in California.—Rare winter visitor in northern portion of State. Has also bred recently in the central Sierras near Yosemite.

Authorities.—**Newberry** (*Syrnium cinereum*), Rep. Pac. R. R. Surv., vol. vi., 1857, p. 77 (upper Sacramento Valley); *Belding*, Land Birds Pac. Dist., 1890, p. 50 (Chico); *Grinnell*, Condor, xvi., 1914, p. 94 (McCloud).

GREAT Gray Ghost would be a more fitting title for this sepulchral bird, whose very existence is a mere tradition to most of us. Although

reckoned the giant of the owl kind, this bird is really not so "great" as he looks, for he is mostly feathers, and his body, when stripped, neither bulks so large nor weighs so much as that of the Great Horned Owl. His visage, also, lacks the fierce aspect which horns impart, and the bird himself is said to be milder mannered than are the Bubos. The forest areas of the "North Countree" are his proper domain, even up to the very limit of trees; and from thence he occasionally, but not commonly, flutters out upon the open marshes and tundras. Mr. Dale, while stationed upon the Yukon, found the birds "remarkably stupid," and declares that he has caught them by hand in the daytime. Certainly their flight is heavy and their motions far from graceful; but the few specimens which straggle down across the borders of our northern states in winter are never left long to their own devices. The most we know of them is that, when folded away in a cabinet drawer, they look like great gray babies, over-rash to have left the protection of their northern nursery.

The claim of this rare northern species to a place in our pages rests upon a solitary example taken at Chico,[1] supported by Newberry's[2] earlier assertion that he had proofs of its existence in the Sacramento Valley. But Dr. Cooper once took a specimen near the mouth of the Columbia River in June (1854), and there are even yet tantalizing rumors of its presence during the breeding season in the forests of Washington. There can be no harm, therefore, in letting the imagination run back to a day, not many milleniums distant, when this great gray ghost haunted our own grim forests of redwood and fir.

The foregoing essaylet was penned in 1914, and is retained unchanged in order that it may afford a background for the subjoined account, which, through the distinguished courtesy of its authors, Dr. Joseph Grinnell and Dr. Tracy I. Storer, we are permitted to publish here, in spite of the fact that it is already "in press" as "The Yosemite Report," prepared under the auspices of the Museum of Vertebrate Zoology, and issuing from the University of California Press.

"The discovery of the Great Gray Owl in the Yosemite section was one of the notable events in our field experience. And what was most surprising was the fact that the bird was apparently quite at home, and nesting. No previous record of the breeding of this northern species of owl south of Canada is known to us, and its occurrence, even as a winter visitant within the northernmost of the United States, is not frequent.

"On June 18, 1915, we were camped to the south of Yosemite Valley on the Glacier Point road within two miles south of Ostrander Rocks. A long trap-line beginning at camp led up the gentle slope towards the latter

[1] Belding, Land Birds of the Pacific Coast District, 1890, p. 50.
[2] Rep. Pac. R. R. Surv., Vol. VI., pt. IV., p. 77 (1857).

landmark and through a fine forest of red fir. On the previous days' attendance of this line, distant glimpses were had, morning or evening, of a large bird in silent flight among the trees. On the day of discovery, however, the diminutive kinglet pointed the way and really deserves all the credit. From a distance through the forest came the low but insistent *wer-rup, wer-rup, wer-rup* of a Ruby-crown, its unmistakable note of anxiety. This clue was traced by the expectant naturalist to a tall fir, out from near the summit of which there presently flew a great owl. The bird alighted at the top of a Jeffrey pine nearby, where it was shot, and (giving several deep-pitched *whoo's*), fell to the ground wounded. At this, another owl appeared in flight from one fir top to another, and was also secured.

"For purposes of photography the wounded bird was taken back to camp alive. Its huge facial discs, each centered by a great yellow-irised eye, its snapping bill, and its spasmodically clenching claws, all contributed to profound respect on our part when handling it, and in securing pictures.

"On succeeding days when a careful search of the vicinity was made, a large nest of sticks, one hundred feet above the ground on the close-set branches of a fir next to the trunk, was found, which, it is thought, belonged to the owls. No close examination of it was made. On June 19 in the same stretch of woods the deep notes of an owl were heard three times repeated, but the bird could not be located. This time the kinglets failed us.

"The two specimens secured proved to be male and female, probably a mated pair. As is usual with owls, the female was slightly larger, measuring: total length 595 millimeters (nearly two feet); expanse of wings 1370 millimeters (four and one-half feet). The male measured: length 580 millimeters; expanse 1350. In both birds the iris was bright straw yellow; bill greenish, becoming yellow towards tip; claws lead-color, darkening towards tips. The stomach of each bird was empty.

"As an indubitable indication of her breeding during the current nesting season, the female was found to have a large bare tract on the lower surface of her body, including the belly and insides of the thighs, from which the larger feathers had all been removed. Associated with this condition, directly beneath the bare skin, were layers of fat, though the bird was otherwise lean. As is well known, many birds show, during the nesting season, the same or similar adaptations for the better performance of the functions of incubation. The male Great Gray Owl lacked any such modifications, and we may infer that in this species the female alone performs the duty of incubation. The reproductive organs of both the birds indicated that the time of actual egg-laying was long past. It seems more than likely that a brood of young had been reared in the vinicity and, approaching maturity, had scattered out through the adjacent woods.

"On July 1, a Great Gray Owl was met with on the old Snow Flat trail, a mile or so north of Indian Rock. When first seen it was perched on a low limb of a lodge-pole pine not over ten feet above the ground. Two Juncos nearby were in spasms of excitement. The owl, taking alarm, flew to a higher branch of a nearby tree, and thence made off into a dense stand of red firs. Its species was easily recognized by its great size, dark gray plumage, big round head without ears, and by the slow flapping of its broad rounded wings. No note was given by this bird. This was at 1:30 p. m. As far as our observations went, this species would seem to be more active by daylight than other owls, such as the Pacific Horned.

"In Aspen Valley, on October 13, 1915, at 7:30 p. m., an owl note, supposedly of the Great Gray, was heard; it proved impossible to verify the identity. Near Tamarack Flat, on May 24, 1919, similar notes were heard, but the birds were not seen. Notes of certain individual Band-tailed Pigeons proved so much like those of this owl as to cause confusion until the authors of the notes were actually seen to be pigeons."

No. 215

Saw-whet Owl

A. O. U. No. 372. **Cryptoglaux acadica** (Gmelin).

Synonyms.—Acadian Owl. Kirtland's Owl.

Description.—*Adult:* Without ear-tufts; upperparts dull reddish brown (Prout's brown), unmarked on back, rump, and nape; sharply streaked on forehead, crown, and sides of neck with white; cervix with considerable irruption of basal white; outer scapulars and middle wing-coverts with large rounded spots of white; semicircular white spots on outer webs of outer primaries and large rounded white spots on inner webs of primaries and secondaries; tail white-tipped and crossed by three interrupted bars of white; wing-linings, axillars, sides (narrowly), flanks, legs, and feet, pale tawny; the remaining underparts white, heavily and broadly streaked with reddish brown; border of eye black, surrounding feathers white, shading into tawny and mingled tawny and brown on outer disc-feathers, rim chiefly mixed brown and white, but brown clear below and sharply set off by narrow white pectoral band. Bill and claws blackish. *Immature* birds are much darker (dark sepia to dark vandyke brown) on head, breast, and upperparts; white spotting much reduced, chiefly confined to forehead and quills; posterior half of underparts plain dark tawny; contrasts in black and white of facial disc more emphatic. Length 177.8-203.2 (7.00-8.00); wing 138 (5.43); tail 68 (2.68); bill from cere 12 (.47). Females average a little larger.

Recognition Marks.—Towhee size, but appearing larger; larger than Pygmy Owls (*Glaucidium gnoma*); body longer, not chunky; tail not conspicuous nor held at angle; without ear-tufts as compared with *Otus asio* group.

Nesting.— *Nest:* In hollow trees, deserted woodpecker holes, etc. *Eggs:* 4 to 7; white, subspherical. Av. size 30.5 x 25.4 (1.20 x 1.00). *Season:* April–June, according to altitude; one brood. (Fyffe, May 17, 1913—brood of five young—Ray).

The Saw-whet Owl

General Range.—Temperate North America. Breeds from the southern tier of British Provinces south to the southwestern states, and east of the Rocky Mountains to Nebraska, Ohio, and Maryland; winters irregularly southward; accidental (?) in Mexico and Guatemala.

Occurrence in California.—A rare breeder at least in the Transition and Canadian zones of the central Sierras, and probably south to the San Jacinto Mountains (Round Valley, Aug. 11, 1898, Stephens). More widely and more frequently in evidence in winter, at which season its numbers are probably augmented from the North.

Authorities.—**Gambel** (*Nyctale acadica*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 47 (Monterey); *Ray*, Condor, vol. xvi., 1914, p. 65, figs. (Sierra Nevada, breeding); *Pierce*, Condor, vol. xxii., 1920, p. 40 (San Bernardino Mts., breeding).

WE ARE NOT unlike song birds ourselves, in that the advent of an Owl, of whatever species, will make a ripple of excitement in our day. The nether world has erupted. We have caught a glimpse of tasseled ear or cloven hoof and we are strangely wrought up thereby. The reaction of curiosity, which almost invariably follows, has spent itself in vain upon these people of the underworld, the night world, and what we do not know about some of the Owls is likely to pass as a legacy to our children's children. There have been those who knew a good deal about the Saw-whet Owl. The late Dr. Julian Ralph, of Utica, New York, was chief among them, for he assisted in the taking of five sets of their eggs in that region. On the other hand, there are men a-plenty, reputable ornithologists among them, who never saw a Saw-whet Owl, and who do not know their notes.

Something more than a dozen occurrences of this bird have been noted in California. Most of these have been in winter, but there are just enough summer records to make us suspect that the bird may be found breeding in forests, at suitable elevations, almost anywhere in the State. Authorities differ as to whether the Saw-whet Owl is migratory, and it is probably not so in the strict sense. It is, however, irregularly nomadic in winter and the number of local birds is likely to be increased by visitors from the north. Those who stay to brave the rigors of a northern climate are likely to suffer through failure of food supply, and many winter specimens have been taken by hand in an emaciated condition or picked up dead. Mr. W. E. Saunders thus found twenty-four dead birds along the northern shore of Lake Huron in 1906. It would be difficult to imagine any other species of Owl suffering in this fashion with Tree Sparrows and Juncoes about. But the fact is the Saw-whet appears to abstain altogether from bird-flesh, and to depend entirely upon mice or frogs and insects. It is, therefore, to be warmly commended and protected.

The notes of the Saw-whet Owl have been from time immemorial compared to the "filing of a cross-cut saw." The comparison must have

originated with some lonely woodchopper who was suffering with the toothache. Certainly it is a gross exaggeration, and unfair to the bird. During the brief courting season, when alone the notes are heard, the male is a most devoted serenader; and his song consists of breathless repetitions of a single syllable, *whŏŏp* or *kwŏŏk*, vibrant and penetrating, but neither untender nor unpleasing. In the ardor of midnight under a full moon, this suitor whoops it up at the rate of about three whoops in two seconds, and this pace he maintains with the unfailing regularity of a clock. But to prevent his lady love from going to sleep, he changes the key occasionally. In quality this *Nyctaline* note is not unlike the more delicate utterance of the Pygmy Owl (*Glaucidium sp.*), the *sipŏŏlk(ng)* note. Indeed, I supposed these two notes proceeded from the same bird until Mr. Allan Brooks set me right. There can be no confusion, however, as between the incessant cadences of the Saw-whet and the xylophone "song" of *Glaucidium*. No sweeter moonlight memory comes back to the writer than that of a night spent in camp among the silvered candelabra firs which border a certain prairie south of Tacoma. The moonlight was so palpable a joy that the sleeper must rouse ever and again to taste its fulness; and as often as one stirred on his bed of mingled fern and "sweet-in-death," he heard the sweet, unfailing clamor of the Saw-whet, as he pressed his amorous suit. And ever and again, like a mocking chorus, came the tiny ghostly tinkling rondel of his Pygmy rival—*Abiunt amores!*

No. 216

Screech Owl

No. 216a McFarlane's Screech Owl

A. O. U. No. 373h. **Otus asio macfarlanei** (Brewster).

Description.—"Similar in coloration to *O. a. bendirei* but much larger" (Ridgway). "Larger size, greater extent of blackish markings on the contour feathers generally, and the browner tone of color dorsally, serve to distinguish it from any specimen of the more southern California races" (Grinnell).

Range of *O. a. macfarlanei.*—The semi-arid Upper Sonoran zone of the "Columbian trough" from southern British Columbia to northeastern California.

Occurrence in California.—Record based upon a single specimen, #16027, U. S. Nat. Mus., a male taken by John Feilner at Fort Crook in extreme northeastern Shasta County. Surmised, however, to be the resident bird of the Modoc region.

Authorities.—**Brewster** (intergrade between *bendirei* and *kennicotti*); Bull. Nutt. Orn. Club., vol. vii., 1882, p. 32 (Ft. Crook; see Grinnell, *postea*); *Ridgway*, Birds N. and M. Am., part vi., 1914, p. 697 (n. e. Calif.); *Grinnell*, Condor, vol. xxi., 1919, p. 173 (status in Calif.).

Taken in Monterey County

ORPHANS

Photo by the Author

No. 216b California Coast Screech Owl

A. O. U. No. 373c. **Otus asio bendirei** (Brewster).

Synonym.—Bendire's Screech Owl.

Description.—*Adult:* With more or less conspicuous ear-tufts. General plumage finely mottled brownish gray, boldly striped with black; above, the tone produced by fine mixture of light ochraceous, pale grayish white, and dusky; black streaks centrally on feathers, heavily and finely on head, more sparingly on back and wings; outer webs of outer scapulars and greater coverts chiefly white, appearing as large rounded spots; quills coarsely barred, fulvous and dusky on outer webs, more obsoletely and sparingly on inner; underparts chiefly dull whitish, marked coarsely with central streaks of blackish, and finely and irregularly cross-barred with the same—the effect on the sides of the belly is as though the bird were covered with crawling insects having narrow black bodies and four or five pairs of black legs set at varying angles; middle of belly and lining of wings dingy white or palest tawny, nearly immaculate; facial disc not sharply set off from surrounding plumage, although defined by rim of brownish, its feathers white with black shafts around base of bill, white with fine herring-bone pattern of blackish distally. Bill blackish paling on tip; claws horn-color, darkening on tips; iris yellow. *Immature:* Entire plumage, except quills and rectrices, finely barred dusky and whitish. Length of adult 203.2-247.6 (8.00-9.75); male: wing 161.9 (6.37); tail 81.1 (3.19); bill from cere 14.1 (.555); female: wing 166.2 (6.55); tail 84.1 (3.31); bill from cere 14.7 (.579).

Remarks.—This form, unlike *O. a. typicus*, *O. a. nævius*, and many other full species of the genus *Otus*, has no rufescent or "red" phase. Its color tone, in fact, is singularly uniform. But Mr. Grinnell has pointed out that there is a noticeable gradation in tone from the darker and warmer specimens of the northwestern part of the State through average specimens of the Bay region, to lighter and grayer birds from Walker's Pass and the vicinity of Los Angeles; and he has given the name *O. a. quercinus* to the last-mentioned. There is no doubt that the tendency exists, but it is occasionally contradicted by local examples, and I do not follow Mr. Grinnell in according it a separate name.

Recognition Marks.—Robin size, but appearing larger; ear-tufts—"horns"—with size, distinctive in range; darker and browner than *O. a. gilmani.*

Nesting.—*Nest:* An old woodpecker hole or natural cavity in stub or tree, usually at moderate elevations. Sometimes lined indifferently with casts, trash, and feathers. *Eggs:* 2 to 4; subspherical, white. Av. size 35 x 30 (1.38 x 1.18). *Season:* March–May; one brood.

Range of *Otus asio.*—Temperate North America, breeding from Sitka, Alaska, southeastern British Columbia, and northern border of the eastern states, south into northern Mexico.

Range of *O. a. bendirei.*—"California, except southeastern desert region (and, probably, northern coast district) and south central Oregon (Fort Klamath)" (Ridgway).

Distribution in California.—Resident in Upper Sonoran and Transition zones west of the Sierran divide. Most common in San Diegan district and along the inner coast ranges south of San Francisco Bay. Also common along the timbered foothills of the western Sierras north to Shasta. It is purely a matter of opinion whether specimens from Eureka should be referred to *bendirei* or to *brewsteri* of the Oregon Coast.

Taken in Monterey County *Photo by the Author*

THE CHAMPION

Authorities.—**Lawrence** (*Ephialtes choliba*), Ann. Lyc. Nat. Hist. N. Y., vol. vi., 1853, p. 4 (Sacramento); *Brewster*, Bull. Nutt. Orn. Club, vol. vii., 1882, p. 31 (orig. desc.; type locality, Nicasio); *Bendire*, Life Hist. N. Am. Birds, vol. i., 1892, p. 361; *Emerson*, Condor, vol. viii., 1906, p. 29 (red phase); *Swarth*, Condor, vol. xvii., 1915, p. 167 (Eureka; crit.), *Bonnot*, Condor, vol. xxiv., pp. 30, 31 (voice.)

No. 216c Sahuaro Screech Owl

A. O. U. No. 373f. **Otus asio gilmani** Swarth.

Synonyms.—Arizona Screech Owl. Formerly called Mexican Screech Owl.

Description.—*Adult:* Somewhat similar to *O. a. bendirei*, but much paler and grayer,—ashy gray tone sustained nearly throughout; under plumage heavily and finely mottled gray (with customary black streaks); the upper plumage slightly rufescent; the disc-feathers of throat somewhat modified, those of the middle broadly black-ribbed, those of the side with rib suppressed distally, and sharply cross-barred instead. Length of adults: 190.5-228.6 (7.50-9.00); male: wing 152.6 (6.01); tail 76.5 (3.01); bill from cere 12.9 (.51); female: wing 156.5 (6.16); tail 75.1 (2.96); bill 13.5 (.53).

Remarks.—This form represents the extreme in another line of divergence from *O. a. nævius*, viz., the *maxwelliæ-aikeni-gilmani* group. There is a hiatus between its range and that of *bendirei* (or *quercinus* Grinnell), and there is no suspicion of intergrading between them.

This also is known as a monochromatic form, i. e., it has no recognized rufescent phase; but a specimen taken by Dr. Cooper at Ft. Mohave on the Colorado River in 1861 (Mus. Vert. Zool. No. 4395) is decidedly warm in tone throughout, possibly the effect of fading.

Recognition Marks.—As in preceding—lighter and grayer.

Range of *O. a. gilmani.*—Southwestern California, southern Arizona, and southwestern New Mexico (presumably also northern Sonora).

Occurrence in California.—Resident in the valley of the lower Colorado River and probably also in the Imperial Valley.

Authorities.—H. Brown (*Megascops asio cineraceus*), Condor, vol. vi., 1904, p. 46 (Colo. Valley, on Calif. side); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 128 (Colo. Valley); *Gilman*, Condor, vol. xi., 1909, p. 147 (Ariz.; desc. nests; habits, etc.); *Swarth*, Condor, vol. xviii., 1916, p. 163 (crit., desc., meas.).

Taken in Monterey County
Photo by the Author

ALL ABOARD!

TO ONE whose early studies have been conducted in the forests and deciduous groves of the East it is a disappointment to learn that the birds of California will not respond to the Screech Owl cry. Why, go out in any grove from Iowa to Massachusetts, at any time of year, at any hour of daylight, save the siesta interval from 10 a. m. to 2 p. m., secrete yourself in a thicket and simulate the mournful, rolling call of the little Screech Owl, and you will at once be conscious of an apprehensive hush in the neighboring trees and bushes. Then follows a murmur of inquiry; Chickadees, Titmice, Nuthatches, Warblers, Vireos, and Jays set out to discover the whereabouts of this arch-enemy who has been indiscreet enough to proclaim his presence during the hours of his helplessness. If a veritable Owl is found, as not infrequently happens, every bird's bill is against him, and there is none so poor to do him reverence—by daylight. This is not alone because he appears stupid and sleepy, or because he regards his tormentors with the fixed gravity of a round-eyed gaze, varied only by "that forlorn, almost despairing wink" peculiar to it, but because they have an ancient and well-grounded grudge against this bird of silent wing and cruel claw. All but the Blue Jay (*Cyanocitta cristata*)—he is a villain himself, and he leads the persecution of Owls from a sheer love of mischief. Whenever a Blue Jay's voice is lifted high, and there is an undercurrent of bird-babble beneath it, it is time for the bird-man to slip rapidly forward from tree to tree and investigate.

But there is none of that here, nor indeed anywhere in the West, so far as I have been able to discover. Why, we do not exactly know; but it may

not be amiss to speculate. In the first place, the bird is less tuneful—or less noisy—and so less in evidence in the West. The notes, too, are different, and, possibly, less terrifying, though terror with birds must be more a matter of remembered experience than of tone quality and suggestion in itself. Instead of that "tremulous quaver, exquisitely mournful and sweet," but also very gruesome, as it proceeds from the throat of a famished, bird-hunting Screech Owl in zero weather, we have in the California bird duller tones and a song phrase made up in its early numbers of separate and easily distinguishable notes. But also, chiefly, I think, the Screech Owls of the Pacific Coast, having in winter a more abundant and constant supply of their favorite food,—mice, beetles, frogs, and even, occasionally, fish—are not often driven to attack other birds. Tyler records an instance where a Screech Owl was chased by Mockingbirds; and, in general, it may be said that almost any bird will join in the pursuit of any night-prowling Owl. Even that most impeccable mouser, the Barn Owl, is sometimes set upon, in sport. But the key to the woods has been handed over to the Pygmy Owl, and him the small birds fear as they do not *Otus asio bendirei.*

SOUTHERN CALIFORNIA SCREECH OWL

Taken i
San Di

Photo b
D. R. I
& L. H

It is only at nesting time that we can acquire anything more than the merest scrap of information about our Screech Owls. Early in April, or, rarely, in later March, some natural cavity in a tree, whether live oak, cottonwood, or sycamore, or else some deserted Woodpecker's nest, is selected for a home. Instances are found where the birds used old rat nests, and they are suspected of occupying old Magpie nests as well. No lining material is required, and the three or four rounded white eggs

are laid upon the rotten wood or chippings left by the last occupant. The female is a very close sitter, requiring to be lifted from the eggs, if incubation has progressed; while the male, when not actually sharing the nesting cavity with his mate, is usually to be found in some nearby cranny.

Mr. Benjamin F. Gault tells an amusing instance[1] of the Otine reluctance at leaving a happy home. The narrator had found in an old Flicker hole near Riverside, Illinois, a Screech Owl with four young. "The mother bird appeared dazed when brought to the light, and singularly enough in taking her from the nest the entire brood was also removed at the same time, she having instinctively grasped one of the young, that one another and so on until they all became attached, and they certainly presented a ludicrous sight as they came dangling out of the hole, each retaining a firm hold of the other; but the youngsters finally dropped off and tumbled to the ground."

Taken in Oregon *Photo by A. W. Anthony*

MACFARLANE SCREECH OWL

Incubation lasts about three weeks, and the young are blind when hatched. They are covered with a thick white down, like chickens; and like chickens, they will peep lustily if disturbed. Of course they are voracious eaters and so importunate in their demands, that the hard-working parents are required to lay up a

[1] Quoted by Bendire, Life Histories, Vol. I., p. 362.

Photo by A. W. Anthony

CAUGHT RED-HANDED

THE BIRD IS A MACFARLANE SCREECH OWL PHOTOGRAPHED IN THE BLUE MOUNTAINS OF OREGON

surplusage of food during the night which they dole out at intervals through the day. Although they grow very fast it is not until fifteen days after hatching, according to Otto Emerson, who studied a family closely at Haywards,[1] that they get their eyes fully open.

The Owls remain in a family group for some weeks after the young are able to leave the nest, and one occasionally comes across them standing as motionless as statues on some horizontal limb at a low level in the woods. When the young are beginning to make inquiries for themselves, or when family cares are quite done, the old birds, who, since the courting days have maintained a discreet silence, become tuneful—or noisy, according to the receptivity of the listener.

It is altogether probable that these Owls remain mated for life. Anyhow, the birds are discovered in pairs during the winter. Once in the "dead" of winter (how foolish that easternism sounds in California!), January 21, 1911, I was exploring the bottoms of the San Gabriel River in company with Mr. A. B. Howell, when we came to a cottonwood stub about 15 feet high which showed a ragged hole where some oölogist had once dug out a Flicker. Arrived at the top, I split the stump down gently and disclosed a Screech Owl crouching on the bottom. A fragment fell upon him, but he made no moan. Then I rent off the smaller half of the broken tree, capturing the bird without difficulty, and exposing as I did so another cavity below the one in which the Owl sat, and separated from it only by the thinnest septum of rotten wood. The floor of the upper cavity was covered to a depth of three inches with a loose mass of animal debris, decomposed casts, feathers, the tests of ants, etc.; and when the trunk

[1] Bendire, op. cit. p. 362.

was rent, quantities of this material fell down into the lower cavity. I mention this explicitly because it occurred to me, in descending, to thrust an exploratory hand into the accumulation of the lower cavity; and here, uncomplainingly buried, I dug up *another Owl*, the female. It was a shame to kill them, but Howell wanted the skins and each bird passed by the airless route to the land of Not, without a struggle, mild and innocent. As we handled the carcasses of the dead birds, curious big flat flies came forth, black fellows which had evidently been living a parasitic life upon these patient fowls.

No. 217

Flammulated Screech Owl

A. O. U. No. 374. **Otus flammeolus** (Kaup).

Synonyms.—Dwarf Screech Owl. Least Screech Owl.

Description.—*Adult:* (Average plumage based on four nearly uniform California (2) and Arizona (2) specimens). Plumicorns (ear-tufts) very short—scarcely noticeable. General tone of upperparts weathered wood-brown, produced by finely mottled whitish and dusky; facial disc not prominent, its included feathers chiefly dusky-and-white-barred; tawny washes or stains about eyes, base of bill, crown centrally, rim of facial disc (strongly, split on nape by grayish crescent), and vague semicircular broad band across upper back and anterior portion of wing, including the under surface and continued on sides of breast as prominent edging of larger stripes; bordering areas of head, especially the included band of cervix and underparts, lighter—whitish or pale ashy as to ground; the underparts heavily marked with "crawling insect" stripes and bars, after the fashion of *O. asio*, the more prominent figures heavily margined with deep tawny; a large V-shaped design of white and tawny on back, formed by outer webs of outer scapulars; and upperparts further varied by skeletonized central stripes of blackish; quills strongly indented with white and ochraceous on outer webs, obsoletely ochraceous-barred on inner. Bill and feet dark; *iris brown* (unique among owls). *Adult, gray phase:* With tawny (as in preceding description) more or less reduced; in extreme examples entirely wanting, save on scapulars. *Adult, red phase:* With increase of tawny throughout; extreme examples are cinnamon-brown above and strongly tinged with cinnamon-rufous on face and breast. As the red increases, the black tends to reduction or diffusion, being (according to Ridgway) sometimes entirely wanting on crown. *Nestlings:* Notably dark-colored, finely barred dusky and grayish white throughout, but especially on head and underparts; pattern of wings as in adult; and stains of ochraceous about bill, eyes, sides of neck, etc. *Length of adults:* 152.4-177.8 (6.00-7.00); wing 133 (5.24); tail 60 (2.36); bill from cere 9.5 (.37). Females a trifle larger.

Recognition Marks.—Sparrow size, but appearing larger; a tiny Screech Owl to appearance, but "horns" scarcely visible; V-shaped rufous bars on back; decidedly larger than Elf Owl

Nesting.—*Nest:* An old nesting hole of woodpecker, or natural cavity in tree. *Eggs:* 2 or 3; white, subspherical. Av. of 3 eggs from Arizona (Huachuca Mts.—*Willard*): 30.48 x 24.64 (1.20 x .97); index 81. Av. of 2 eggs from Utah (Wahsatch Mts.—*Treganza*): 27.1 x 21.08 (1.065 x .83); index 78. *Season:* About June 1st.

General Range. Mountains of western North America from southern British Columbia to Guatemala.

Occurrence in California.—A little known resident, reported from the mountains of Shasta County (Fort Crook), south, but chiefly in the San Bernardine Mountains.

Authorities. **Cooper** (*Scops flammeola*): Orn. Calif., 1870, p. 422 (Ft. Crook); *Belding*, Proc. U. S. Nat. Mus., vol. v., 1883, p. 549 (Big Trees); *Grinnell*, Univ. Calif. Pubs. Zool., vol. v., 1908, p. 50 (San Bernardino Mts.).

IF A MARTIAN in black livery were to sidle up on the dark side of our planet, all on a moonless night, to spy upon us, he could scarcely keep his business so well concealed as has this ghoulish avian mystery, the Flammulated Owl. Yet the Owl is no interloper, but a native son; for his race has probably told off more myriad moons in California than Piute or Digger or Hueneme. The first example of this species recognized in the United States was taken by Lieut. Feilner, a representative of the Smithsonian Institute, at Fort Crook, in this State, in 1860. So far as California is concerned, the record remained unique for a quarter of a century, when, in 1885, Mr. Frank Stephens took a second specimen in the foothills of the San Bernardino range. Since that date five or six occurrences have been recorded,—two in the central and northern Sierras, and the remaining three or four in the San Bernardines. On the 4th of June, 1894, Mr. M. French Gilman took a set of two eggs of this kind, at an elevation of 7500 feet, on the slopes of San Gorgonio Peak; and it is not improbable that the Owl is of regular occurrence throughout the higher ranges of California.

The Flammulated Owl has been found nesting in the mountains of Arizona and Colorado, and a dozen sets or such a matter taken; but the parent birds have almost invariably been killed at sight after the kindly fashion of our cult, and little is known of the life history or psychology of this little, silent terror of the night. The eggs, three or four in number, are deposited in old Woodpecker holes, usually at moderate heights; and the female is such a close sitter that she requires to be lifted from the nest.

It was Mr. Frank C. Willard, that veteran ôlogist and astute student of bird ways, who first called our attention to a peculiarity of this owl which places it in a class by itself. So far as known, the irides of all other Owls are yellow, presumably because this color best promotes the light-gathering faculty, which is furthered by the facial disk and other

FLAMMULATED SCREECH OWL

devices. But the iris of the Flammulated Owl is of a dark chocolate brown, imparting to the bird a curious, mild expression entirely at variance with Otian traditions. Whether this color operates as a handicap in hunting, we cannot say; but it does increase our desire to know more about this avian sphinx.

Of the most recent recorded occurrence, Grinnell says:[1] "On the evening of July 15, 1905, at Bluff Lake, I obtained an adult male of this rare species. During the preceding two evenings we had repeatedly heard a peculiar note, different from that of any other owl we had ever heard. It consisted of a single mellow 'whoot,' repeated at regular intervals, something like the call note of the Phainopepla in this respect. These notes began to be heard at early dusk, by seven o'clock; but on account of their ventriloquial quality, gave little clue as to distance. Although far reaching, the notes proved to have been uttered close at hand."

No. 218

Horned Owl

No. 218a California Horned Owl

A. O. U. No. 375d. **Bubo virginianus pacificus** Cassin.

Synonyms.—Pacific Horned Owl. Hoot Owl, par excellence. Cat Owl.

Description.—*Adult:* Ear-tufts conspicuous, two inches or more in length, black, bordered with ochraceous; entire upperparts dusky or blackish, finely barred and mottled with prevailing whitish and ochraceous, the latter color predominant on each feather basally; wing-quills and tail faintly broad-barred; facial disc ochraceous, sharply bordered by blackish laterally, feathers whitish and black-tipped centrally, borders before and over eye blackish; a broad white space on chest; feathers of remaining underparts tawny or ochraceous tawny at base, changing to white on terminal portions (in very variable amount), finely and heavily barred with dusky brown; the sides of breast spotted with the same color; the toes pale tawny, nearly immaculate; iris bright yellow. Bill and toe-nails bluish black. *Young:* Above and below ochraceous, barred with dusky. *Chicks* are covered with white down. Measurements, av. of 4 males: Length (skins): 514.35 (20.25); wing 342 (13.47); tail 210 (8.27); bill from cere 26.1 (1.03). Av. of 6 females: Length 557.53 (21.95); wing 366 (14.41); tail 236 (9.29); bill from cere 28.1 (1.11).

Remarks.—This is the prevailing form throughout California, save in the humid coastal belt and the arid southeast. Ridgway, following Oberholser, has recognized a southern coastal form, *B. v. icelus*, from the "coast of California from about Latitude 35 north, to the San Francisco Bay district," but the distinction is clearly based on insufficient material. The influence of *saturatus*, that is, the darkening tendency, is felt all the way down the coast, but specimens from the southern humid coast belt can be duplicated by specimens from the San Bernardinos, and there is no constant difference, as alleged.

Recognition Marks.—Largest except for the two rare species, *Scotiaptex n. nebulosa* and *Nyctea nyctea*. "Horns" and size distinctive. Much darker than *B. v. pallescens;* lighter than *B. v. saturatus.*

[1] The Biota of the San Bernardino Mountains, p. 59.

Nesting.—*Nest:* A cranny or inaccessible ledge of cliff, or a deserted nest of Swainson Hawk, Western Redtail, Yellow-billed Magpie, or Western Crow; indifferently lined, or not, with a few bark-strips, grass-tufts, and feathers. Rarely in hollow trees. *Eggs:* 2 or 3, rarely 4; rounded ovate, white, lusterless, granular. Av. of 36 specimens from San Luis Obispo County in the M. C. O. colls.: 53.3 x 43.9 (2.10 x 1.73); index 82. *Season:* February–April; one brood.

Range of *Bubo virginianus.*—The Americas, except Amazonia.

Range of *B. v. pacificus* (chiefly contained within California).—California, except the southeastern portion, the humid coastal strip (narrowly) north of Latitude 35, and (possibly) the extreme northeastern portion, north into south-central Oregon, east to San Francisco Mountains, Arizona, south to northern Lower California.

Authorities.—Gambel (*Bubo virginianus*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 46 (Calif.); *Stone*, Auk, vol. xiii., 1896, p. 156 (s. Calif.; diagnosis); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxvii., 1904, p. 183 (monogr.); *Miller*, Condor, vol. xii., 1910, p. 13 (fossil); *J. B. Dixon*, Condor, vol. xvi., 1914, p. 47, figs. (life hist.; Escondido).

No. 218b Desert Horned Owl

A. O. U. No. 375a. **Bubo virginianus pallescens** Stone.

Synonyms.—Western Horned Owl. Pallid Horned Owl.

Description.—*Adult:* Similar to *B. v. pacificus*, but much paler, the ochraceous tawny element largely replaced by white, sometimes nearly wanting below, the barring of underparts usually narrower and finer. Adult male: wing 341 (13.43); tail 215.9 (8.50); bill from cere 27.3 (1.07). Adult female: wing 362.8 (14.28); tail 222 (8.74); bill from cere 29 (1.14).

Remarks.—This is a clearly marked bleached form, well established in the arid Southwest. Although the range of *B. v. pacificus* is said to overlap that of *pallescens* (in the San Francisco Mts.), there is very little evidence of gradation within the limits of California.

Recognition Marks.—As in preceding form; much lighter.

Range of *B. v. pallescens.*—The southwestern United States from central Texas west to southeastern California and northwestern Lower California, south into northern Mexico.

Distribution in California.—Resident along the Colorado River, in the Imperial Valley, and in wooded portions of the Colorado and Mohave Deserts. To a limited degree also in the desert ranges.

Authorities.—Baird (*Bubo virginianus*), Rep. Pac. R. R. Surv., vol. ix., 1858, p. 49, part (Colo. River, Calif.); *Oberholser*, Proc. U. S. Nat. Mus., vol. xxvii., 1904, p. 182 (monogr.); *J. Mailliard and J. Grinnell*, Condor, vol. vii., 1905, p. 74 (Victorville; food); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 129 (Colo. Valley).

No. 218c Western Horned Owl

A. O. U. No. 375a, part. **Bubo virginianus occidentalis** Stone.

Description.—*Adult:* Similar to *B. v. pallescens*, but larger and averaging darker in coloration. *Adult male:* wing 349.6 (13.76); tail 212.8 (8.38); bill from cere 27.1 (1.07). *Female:* wing 376 (14.80); tail 230.5 (9.07); bill 30.2 (1.19).

Range of *B. v. occidentalis.*—Central western United States from Kansas and Minnesota west to northwestern California and north to central Alberta.

Occurrence in California.—Recorded sparingly from the northeastern plateau district, probably the resident form.

Authorities.—**Swarth,** Condor, vol. xxiii., 1921, p. 136 (Shumway, Lassen Co.); *Oberholser,* Proc. U. S. Nat. Mus., vol. xxvii., 1904, p. 191 (monogr.).

No. 218d Dusky Horned Owl

A. O. U. No. 375c. **Bubo virginianus saturatus** Ridgway.

Description.—*Adult:* Similar to *B. v. pacificus,* but larger and darker; the dusky of upper plumage more extensive, the tawny somewhat reduced; underparts much darker, the ground-color (except area of breast) often entirely tawny, the dusky markings heavier, sometimes nearly confluent; the toes usually mottled, sometimes prevailingly dusky. *Adult male:* length 542.3 (21.35); wing 348.3 (13.71); tail 212.3 (8.36); bill 28.9 (1.14). Adult female: length 593.1 (23.35); wing 374.7 (14.75); tail 227.2 (8.95); bill from cere 30 (1.18).

Remarks.—A strongly marked form from the northern coast belt whose influence is felt as far south as Monterey, prevailingly to San Francisco Bay region. A typical example of the darkening, "saturating," influence of humidity.

Recognition Marks.—As in *B. v. pacificus;* larger, darker.

Range of *B. v. saturatus.*—Pacific Coast district from southern Alaska to south central California.

Distribution in California.—Resident in the humid coastal strip, broadly defined at the north and including the San Franciscan embayment, narrowly defined in the southern reaches to about the southern border of San Luis Obispo County "Probably of casual occurrence in the central Sierras" (Grinnell).

Authorities.—**Vigors** (*Bubo virginianus*), Zool. Voy. "Blossom," 1839, p. 15 (San Francisco); *Grinnell,* Pac. Coast Avifauna, no. 11, 1915, p. 73 (status in Calif.).

BY A FANTASTIC quirk of history the grizzly bear (*Ursus horribilis*) has become the emblem of California. In justification of this early whim, we can only urge that the bear is enthusiastic in welcome and gets an everlasting grip upon the stranger who ventures within her borders. In presenting *Bubo horribilis,* the grizzly bear of the bird world, we shall not be able to offer anything beyond the above named characteristics in his favor. He loves the darkness because his deeds are evil; and after the protecting sun has set, woe betide the mole or rabbit, Partridge, Jay, or Chanticleer, who dares to stir where this monster is a-wing. When captured in a trap, as he sometimes is by aggrieved poultry fanciers, the ruffling of the feathers, the alternate hissing and fierce snapping of the mandibles, and the greenish yellow light which comes flashing from the great saucer eyes, all give fair warning of what one may expect from the free foot once it gets a chance to close upon a victim.

Horned Owls in a state of nature do not pose for inspection unless forcibly detained. A steel trap is, of course, the surest method of detention, but a mob of Blue-fronted Jays ranks a close second. Nothing can exceed the joy of the Jay upon the discovery of one of these grim death's

Taken in Washington *Photo by L. D. Lindsley*

DUSKY HORNED OWL IN TRAP

heads secreted in the depths of a fir tree. Here is a day's sport cut out for one whose "sportin' blood" runs high on week-days and turns feverish on owl days. The whole Jay countryside is aroused. To the number of a score they gather about the victim and throw all his sins up to him in a chorus of Billingsgate. The Owl beams hate at them, snaps his mandibles fiercely, and makes now and then an ineffectual dab at his pursuers, which only seems to arouse fresh shrieks of laughter. When the din becomes unbearable, he may dash from cover, but the Jays surround him at the

next resting place, screaming sarcastic apologies for their past rudeness, and promising redoubled misbehavior.

One wonders that they dare do it, for the sullen object of mirth will assuredly wreak vengeance on them when his turn comes in the first watch of the night. It is difficult to exaggerate the rapacity of these freebooters. An observer in New York State, speaking, of course, of the eastern form, "states that in a nest he examined, containing two young Owls, he found the following animals: a mouse, a young muskrat, two eels, four bullheads, a Woodcock, four Ruffed Grouse, one rabbit, and eleven rats. The food taken out of the nest weighed almost eighteen pounds. A curious fact connected with these captives was that the heads were eaten off, the bodies being untouched."[1] The brain of the victim is counted the tid-bit, and in seasons of plenty the bird will have nothing else. Thus, while the Owl probably will not kill wantonly, it is notoriously wasteful, and the coarser portions of these choice viands of which we read, these bloody offerings to the infant Dinops, are removed periodically from the nest.

Taken in Los Angeles County *Photo by W. M. Pierce*

EGGS OF PACIFIC HORNED OWL ON LEDGE OF CLIFF

While a certain amount of "good" is undeniably accomplished by the Horned Owl in preying upon rats and gophers, it is more than offset by the relentless attacks upon birds, especially upon meadowlarks, quails, and grouse, and

[1] Bendire, Life Histories, N. A Birds, Vol. I., p. 382.

by the frequent, although not regular, depredations upon poultry. Other predatory species are not exempt, either. Crows and Jays are frequent victims, and Screech Owl appears to be a regular item on the Bubonine bill of fare. Mr. Bowles relates, also, that during the fall and winter months on certain shooting preserves these birds make a thorough search every night for wounded ducks. So successful are they that out of hundreds that are wounded and lost by sportsmen, it is unusual to find one; while well picked carcasses are common.

Taken near San Diego *Photo by L. Huey and D. R. Dickey*

PACIFIC HORNED OWL ON NEST

A government expert who has given great attention to the food of hawks and owls summarizes thus:[1] "The Great Horned Owl does a vast amount of good and if farmers would shut up their chickens at night instead of allowing them to roost in trees and other exposed places, the principal damage done by this bird would be prevented." From this hopeful conclusion I find myself obliged to dissent, for I have yet to find the nest of your Horned Owls which does not bear testimony to persistent and outrageous depredations upon the bird world.

Horned Owls, too, are of commoner occurrence than is sometimes realized. Although normally bold and aggressive, the birds soon learn caution, and because their local attachments are very strong, they will forego the pleasure of song rather than desert the ancestral haunts. Where danger has not taught discretion, they are quite free with their nocturnal concerts; but they are known to nest in places where a single full-voiced *hoot* would draw the fire of the countryside. The mating song (save the mark!) is a succession of resonant bellowings in a single key—*Whoo, whoo, hoo-hoo, who*—quite variable as to length and form. Besides this the bird occasionally indulges in sepulchral laughter, *hoo hoo hoo hoo*

[1] U. S. Dept. of Ag. Biol. Surv. Circular No. 61, p. 16.

hoo hoo hoo, which arouses anything but mirthful feelings in the listener.

But these modest notes by no means exhaust the Horned Owl's repertory. As a young man, in Tacoma, the writer once lived in a house which immediately adjoined a large wooden church. My chamber window looked upon a flat kitchen roof, through which projected a brick chimney some ten feet away. At three o'clock one morning a horrible nightmare gave way to a still more horrible waking. Murder most foul was being committed on the roof just outside the open window, and the shrieks of the victims (at least seven of them!) were drowned by the imprecations of the attacking party—fire-eating pirates to the number of a dozen. Pandemonium reigned and my bones were liquid with fright—when suddenly the tumult ceased; nor could I imagine through a whole sick day what had been the occasion of the terrifying visitation. But two weeks later the conflict was renewed,—at a merciful distance this time. Peering out into the moonlight I beheld one of these Owls perched upon the chimney of the church hard by, gibbering and shrieking like one possessed. Cat-calls, groans, and demoniacal laughter were varied by wails and screeches, as of souls in torment—an occasion most memorable. The previous serenade had evidently been rendered from the kitchen chimney,—and I pray never to hear its equal.

The early nesting of the Horned Owl is the marvel of those eastern states whose Februaries are given over to blizzards instead of roses. Fresh eggs have been taken in early February, with zero temperatures prevailing, from nests wherein all but the sitting bird was encrusted with snow. Here in California, where temperature cuts so little figure in nesting calculations, the Horned Owls hold pretty much to the ancient habit. February and March are the usual nesting months, and January 29th (1911) at Escondido is the earliest date I can discover. These Owls never build nests of their own, in the strict sense, but either occupy some deserted nest of Redtail, Magpie, or Crow, or else make shift with the natural opening of some ledge or cliff cranny or steep hillside. Shelter is a minor consideration, since the bird fears neither storm nor prowling coyote; but some degree of elevation, a commanding lookout, is the prime requisite. The nesting hollow, whether of sticks or of earth, is lined casually with feathers from the bird's breast. And in this depression two, sometimes three, or, very rarely, four, white eggs are laid. These are subspherical in shape; in size about that of hens' eggs, notably small for the bulk of the bird; and they require the services of the mother for something over four weeks. During the period of incubation the male is in close attendance, feeding his mate faithfully upon the nest and keeping a sharp lookout for intruders.

When disturbed, the owners pose in various attitudes, grotesque

or frightful, snapping their mandibles, and groaning now and then in a most dismal fashion. If the young are well grown, it is not at all safe to venture near, for an irate Horned Owl is incredibly swift in attack, and a raking shot from those powerful talons will leave at best a very sore head. One ardent investigator,[1] presuming too much upon an acquaintance of two years' standing, attempted to remove the owlets from a nest for photographic purposes. The blood flowing from three scalp wounds was soon staunched and he recovered his cap from a tree top a hundred yards away, "a punctured souvenir of our last intimate contact with the local Horned Owls."

No. 219

Snowy Owl

A. O. U. No. 376. **Nyctea nyctea** (Linnæus).

Description.—*Adult male:* Without plumicorns; entire plumage pure white, sometimes almost unmarked, but usually more or less spotted, or indistinctly barred above with pale brownish or fuscous,—perhaps heaviest on middle of back and wing-coverts; wing-quills and tail-feathers irregularly and sparingly spotted with dusky; below still fainter indications of dusky barring; legs and feet immaculate, heavily feathered. Bill and claws black; iris yellow. *Adult female:* Similar to male, but much more heavily barred with brownish black—only face, forebreast and feet unmarked; top of head and hind-neck spotted with dusky. *Young:* Uniform brownish dusky or sooty gray. Length of adult male (measured from tip of bill over head to end of tail): 635-685.8 (25.00-27.00); wing 410 (16.14); tail 230 (9.06); bill from cere 25.7 (1.02). Adult female, length 685.8-762 (27.00-30.00); wing 445 (17.52); tail 250 (9.85); bill from cere 27.5 (1.08).

Recognition Marks.—Brant to eagle size; pure or nearly pure white plumage.

Nesting.—Does not breed in California. *Nest:* A hollow in the ground, scantily lined with moss or grass and feathers. *Eggs:* 3 to 10, usually 5 to 7; oval, white. Av. size 57 x 45 (2.44 x 1.77); index 80.

General Range.—Northern portion of Northern Hemisphere. In North America breeds chiefly on the barren grounds from the Yukon Delta, central Mackenzie, and northern Ungava, north to high latitudes. Winters regularly south from the Arctic Circle to southern Canadian provinces, and sporadically into the northern central states, and straggles even to California, Texas, Louisiana, and North Carolina; and casually to Bermuda (3 records).

Occurrence in California.—Rare and sporadic visitor in winter. Two invasions recorded in recent years: that of 1896 reaching to Sonoma and Alameda counties, or possibly Santa Cruz (*fide* Thompson); that of 1916 reaching Del Norte (Nov. 1, spec. in M. C. O. coll.) and Humboldt counties.

Authorities.—**Cohen,** Osprey, vol. i., 1897, p. 71 (Alameda, Sonoma, and Humboldt counties, Dec., 1896); *Thompson,* Condor, vol. iii., 1901, p. 141 (Santa Cruz); *Smith,* Condor, vol. xix., 1917, p. 24 (Humboldt Co., Nov., 1916); *Bryant,* Calif. Fish and Game, vol. iii., 1917, p. 37 (n. Calif.; winter 1916-17).

[1] Chas. R. Keyes. See Condor, Vol. XIII., Jan., 1911, p. 17.

STRAGGLERS of this species are occasionally reported from any of the northern tier of states in winter, but it is only upon the occasion of widely concerted movement that general attention is drawn to their presence. Such an extended flight occurred in the East in the winter of 1901-2, when information of the capture of more than four hundred specimens was compiled by Mr. Ruthven Deane. The last general movement in the Pacific Northwest occurred in the winter of 1896-7, and it was this invasion which supplied us with our first explicit records of the bird's occurrence in California. A specimen was taken near Alameda on the 2nd of December, 1896, and three were shot in Sonoma County at about the same time. A correspondent of the San Francisco Chronicle, under date of December 8, reported the occurrence of Snowy Owls "in flocks" in Humboldt County.

Another movement, less extensive, was noted in the winter of 1916-17; and a specimen, an adult female, taken November 1st, 1916, in Del Norte County by Wesley Cooper, and prepared by C. I. Clay, of Eureka, is now in the M. C. O. collection. There is even a Santa Cruz record, of uncertain date, and we may suppose that other such occurrences have only escaped record.

No opportunity is ever lost of killing one of these handsome mid-winter visitors; and one might suppose, from the number of specimens which adorn store windows and taxidermists' shops, that the bird is much more common than it really is.

"The home of the Snowy Owl is on the immense moss- and lichen-covered tundras of the boreal regions, where it leads an easy existence and finds an abundant supply of food during the short Arctic summers. It hunts its prey at all hours and subsists principally upon the lemming, and it is said to be always abundant wherever these mammals are found in any numbers. Small rodents are also caught, as well as Ptarmigan, Ducks, and other water fowl, and even the Arctic hare, an animal fully as heavy again as these Owls, is said to be successfully attacked and killed by them" (Bendire).

No. 220

Burrowing Owl

A. O. U. No. 378. **Speotyto cunicularia hypogæa** (Bonaparte).

Synonyms.—Ground Owl. Billy Owl. Cuckoo Owl. Snake Owl.

Description.—*Adults:* Above dull grayish brown (wood-brown, bister, or warm sepia), heavily spotted and commingled with white or pale ochraceous-buff, the spots paired on the larger feathers and defined by adjacent dusky areas, the paired spots enlarged and dissociated toward base of remiges and rectrices; tail thus irregularly

BURROWING OWLS

six- or seven-barred; extreme forehead, ill-defined superciliary stripe, and throat, broadly, white; jugulum crossed by mottled band of brown and white, beneath which a pectoral semilune of white; remaining underparts white or pale ochraceous-buff, heavily barred, save on lower belly and crissum, with brown and brownish dusky; lining of wings chiefly pale ochraceous. The plumage is very variable both in the shade of brown and in the amount of white admixed, some specimens appearing nearly white on the head and upper back. Bill bluish dusky, changing to yellow on ridge and tip; iris lemon-yellow; claws black. *Young birds* are less spotted above, on head and back nearly uniform grayish brown, and are unmarked below save on jugular band. *Chicks* are covered with white down. Length 241.3 (9.50); wing 171.5 (6.75); tail 81.3 (3.20); bill from cere 14 (.55); tarsus 44 (1.73).

Recognition Marks.—Robin size, but appearing much larger; terrestrial habits; head without plumicorns; *light* grayish brown coloration.

Nesting.— *Nest:* At end of underground burrow, 4 to 10 feet in length, usually a mere cushion of dried horse-dung, occasionally with admixture of feathers and other soft substances. *Eggs:* 5 to 11; white, subspherical, highly glossed. Av. size 31.8 x 25.4 (1.25 x 1.00). *Season:* April 20–May 20; one brood.

Range of *Speotyto cunicularia.*—Treeless portions of the western United States and adjoining British Provinces, south to southern South America.

Range of *S. c. hypogæa.*—Western North America from Puget Sound (locally), central British Columbia, southern Saskatchewan, and southwestern Manitoba, south to Panama, and from the Pacific Coast (exclusive of the humid strip) with most of the adjacent islands, east to central Nebraska, Kansas, and southeastern Louisiana. Migratory from the northern portions of its range.

Distribution in California.—Common resident in the treeless portions of the State up to the Transition zone. Not found in the humid coastal strip above Marin County, nor on the rocky desert ranges. Occurs regularly upon the islands from the Farallons south. Numbers undoubtedly augmented in winter by migrants from the North.

Authorities.—Gambel (*Athene socialis*), Proc. Acad. Nat. Sci. Phila., vol. iii., 1846, p. 47 (Calif.; crit., habits, voice); *Coues*, Birds of the Northwest, 1874, p. 321 (syn., desc. habits, etc.); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 51 (San Joaquin Valley; habits, etc.); *C. A. Wood*, Contr. to Med. and Biol. Research, 1919, p. 818 (eye structure).

"BILLY OWL" is the humorous and half affectionate name bestowed by all good Californians upon this familiar sprite of the roadside, this authentic genius of open spaces. Like an elfin sentry the bird challenges from his earthen mound, denounces us valorously as trespassers, and then either dives ignominiously below or flees to some distant sage top. Or, if he holds his own at the mouth of the home burrow, he bows and clucks in a fashion which is eccentric rather than polite. Of the bird's absurd appearance Coues has testified in a memorable passage:[1]

"Their figure is peculiar with their long legs and short tail; the element of the grotesque is never wanting; it is hard to say whether they look most ludicrous as they stand stiffly erect and motionless, or when they suddenly turn tail to duck into a hole, or when engaged in their various antics. Bolt upright on what may be imagined their rostrum, they gaze about with a bland and self-satisfied, but earnest air, as if about to address an audience upon a subject of great pith and moment. They suddenly bow low with profound gravity, and rising as abruptly, they begin to twitch their face and roll their eyes about in the most mysterious manner, gesticulating wildly, every now and then bending forward till the breast almost touches the ground, to propound the argument with more telling effect. Then they face about to address the rear, that all alike may feel the force of their logic; they draw themselves up to their

[1] Birds of the Northwest, 1874, pp. 326-7.

fullest height, outwardly calm and self-contained, pausing in the discourse to note its effect upon the audience, and collect their wits for the next rhetorical flourish. And no distant likeness between these frothy orators and others is found in the celerity with which they subside and seek their holes on the slightest intimation of danger."

These curious Owls are alone among the northern land birds in the choice of subterranean dwellings. On the Great Plains they avail themselves largely of deserted prairie dog holes, but in California their choice falls oftenest upon the burrows of the ever present ground squirrels (*Citellus sp.*). Badger holes are also great favorites, but no offering of the lesser rodents is despised. It is probable that the Burrowing Owl does not originate its burrow, although in the case of the smaller rodents the tunnels require to be enlarged. This the bird does, not with its beak, but with its powerful claws, loosening the dirt and kicking it backward by successive stages, until it is ejected at the entrance. A typical burrow may descend sharply three or four feet, then turn and pursue a slightly ascending course until an ample nesting chamber, a foot or more in width and six inches deep, is reached. Some tunnels are much more extended. Tyler, in Fresno County, followed one for eighteen feet, and was rewarded by a single egg —not to mention fleas.

Taken in San Bernardino County *Photo by Pierce*

THE BURROW

The nesting cavity is heavily lined with dried horse dung, torn to feathery shreds and

spaced evenly. The tunnel has more or less of the same material scattered throughout its length, and a certain amount distributed over the external mound is a necessary evidence of occupation. This is the approved form of upholstery, but some naughty birds near Dos Palos are indulging a more expensive fancy. Here, in three instances, we found tunnels lined copiously with wings of the Black Tern (*Hydrochelidon nigra surinamensis*), and no less than a dozen pairs of these gruesome mementoes scattered about each front yard. This habit is doubtless quite exceptional, and due to the special temptations of the immediate neighborhood. One need not kill these Owls to learn what else they feed upon, for half-eaten mice, dismembered frogs and headless snakes litter the floor, and invite the offices of the far-venturing blow-fly. Fleas usually abound; and altogether the nuptial chamber of this doughty troglodyte is not an inviting place.

Taken in San Bernardino County

Photo by Wright M. Pierce

A PAIR OF BURROWING OWLS

From six to eleven young are raised in a single brood; and when we consider that the adults themselves require more than their own weight of animal food daily, we begin to form some conception of the economic importance of these birds. Their food includes all the baneful rout of rodents, and they are able to kill ground squirrels of a size equal to their own. Besides these, lizards, frogs, snakes, and even small fish, are captured. Grasshoppers and crickets, as well as beetles of many sorts, are staple food, and for these the bird hunts by day as well as by night. In the pursuit of prey, however, the birds become much more active at sunset, when they may be seen flitting about on noiseless wing, or else hovering in mid air above a suspected spot, after the well known fashion of the Sparrow Hawk. Small game is snatched from the ground without lighting, but in capturing a ground squirrel, the bird first plants his talons

in the back, then breaks the creature's neck by sharp quick blows of the beak. Soberly regarding the special claims of the hay rancher and grain-grower, I should say that, save the Barn Owl only, the Burrowing Owl is his best ally among birds, and that he who wantonly destroys one should be classed with the man who tramples a field of grain or sets fire to a haystack.

Whenever food is plenty and the ground inviting, Burrowing Owls are likely to form little colonies, ten or a dozen pairs being found in a stretch of two or three acres. They appear to be peaceably disposed toward each other, and mates are notably faithful. Upon the advent of spring, or say in the early days of March, one may hear at evening a soft and mellow love song, *coo coo-oo, coo coo-oo,* which the male repeats by the hour. This sound, which our English friends declare reminds them strikingly of the old world cuckoo (*Cuculus canorus* Linn.), requires to be carefully distinguished from that of our own Road-runner (*Geococcyx californianus*). It is perhaps more sprightly and thinner in quality than that of the love-lorn chaparral cock, but the resemblance is very close. Besides this engaging love note, the Burrowing Owl indulges the strongly contrasting clattering cries already referred to. This excited clacking serves not only to exorcise invaders in time of danger, but to voice various emotions, notably those which arise at early evening in pursuit of the chase. I have even suspected that it was a sort of hunting song, a due notice to all imprudent moles, akin to the awful serenade with which the Mountain Lion terrorizes his prey. Be this as it may, the reverberating *clack—clack—clack clack clack,* sounding from field to field, serves to identify the twilight hours as *Speotyto*'s own.

The Burrowing Owl enjoys an almost unbroken distribution throughout the treeless or lightly timbered sections of the State, from the base of the Sierras down to the ocean's edge. Indeed, it does more than this, for it is one of the characteristic birds of the Santa Barbara Islands and those of the coast of Lower California. In such situations it is impossible to believe that the lesser sea-fowl—petrels and auklets—do not furnish their quota of this bird's fare. In 1911 I found a single Owl on the flat below the siren on the S. E. Farallon, a very darkling bird, soiled, perhaps, by much searching of cinder heaps. I was told that several pairs had formerly bred there, but that they had been shot off because of their persecution of the smaller migrants. On the other hand, Brown, who found them abundant on Guadalupe Island, examined a nest which contained, as provision for five youngsters, only eighteen freshly killed mice, besides remains of countless others. Burrowing Owls do not thrive upon the desert, nor at Lower Sonoran levels generally, although they may be found under exceptional circumstances. Although civilization and at-

tendant cultivation bear hard upon them, yet they are able to maintain themselves in out-of-the-way places, and in the shelter of fence rows. Squirrel poison claims occasional victims, especially the bisulphide variety; and the Owls will disappear from sections where poison is persistently used.

Taken in Oregon *Photo by Finley & Bohlman*
BROTHERS

For Younger Readers

IF YOU WERE A BIRD I don't believe you'd want to live in a hole in the ground, would you? It's warm there, no doubt, but it must be stuffy and dark; and oh! supposing it should rain too much at once! But this bird likes it. He was brought up that way, and he doesn't know any better. We call him the Billy Owl because, because—well, now, I don't know just why we do call him the Billy Owl, but I guess it's because he is so funny. When he hears us children coming, no matter how quietly, he scrambles up out of his hole

to greet us. Somehow he seems to be very much excited and he'll bow and scrape and say "How d'ye do?" over and over again. And then he'll turn around and say "How d'ye do?" backward; and then he'll say it frontward again. But he won't stay to shake hands. No, not he. Why? Because he's *afraid*. Think of that! And he doesn't need to be afraid, either, because he has finger-nails as sharp as pins; and if he did stay and shake hands—well, I'm glad he doesn't want to, that's all.

No, if we come too close, this funny, silly bird will fly away where we can't see him any more, or else he'll pop down into his hole again. If we had a spade we'd dig down and find him, but it would be a lot of work for daddy or somebody. If we could get down we would find Mrs. Burrowing Owl sitting on some round white eggs (oh, *almost* round, not quite) about as many eggs as you have fingers. And right beside Mrs. Owl would be a lot of cunning field mice (no, not live mice, but almost alive mice) that Billy had brought in for her to eat. And besides that there is, let me see, a part of a frog and a half-eaten snake and a—and a—oh, dear, I don't believe this is a nice place for us at all. Let's get out.

The farmer likes to have these Owls about his place, just because they catch mice and gophers. One Owl is better than two cats, just to catch mice; and, besides, you don't have to feed him milk. Perhaps that's why he catches mice all the time—because he has to.

This funny Billy Owl can be serious when he wants to, and he wants to be very serious at night in the springtime. Then he goes about singing *coo coo oo, coo oo oo,* in a sweet melancholy voice that makes the shivers go up and down your back—unless you happen to be a poet; and if you are, you say, "How perfectly beautiful!" And you mean it, too.

But I want to tell you about Billy Owl's babies, the babies which hatch out of the round white eggs—for I think they are the most delightful and perfectly behaved children I ever saw. Of course when they are *tiny* babies they have to stay down in the ground with their mama. But when they get big enough to walk, then Billy takes them out for an airing—one, two, three, four, five, six, seven, eight, nine, ten! My! the ground is just boiling over with Owl babies.

Billy has to count them off on his toes twice to be sure they are all there. Then they set out for a walk, while mama stands and watches them from the door. They learn to catch crickets, and they watch the big saucy grasshoppers as they spring up into the air and crack their heels together twice. Billy catches one and divides it between two of the children. Um! so good! And then they learn to turn over stones and meadow-cakes to look for beetles. But just then mother, on the lookout, cries, *Quant*, which means "Look out!" She sees a man coming on horseback. She does not know it is the bird-man who will not hurt her. Every owl chicken freezes, becoming as motionless as a stone. Then *quant quant*, which means "Come home," and every chick, obedient to the dot, turns and toddles toward that yawning friendly hole. How it happens, I do not know, but it is a fact that before the hole is reached a line has somehow been formed, with the youngest and smallest in the lead, and the biggest, whom we suppose to be the eldest sister, in the rear. Punctual to the second, not a peep of protest, not a chick remaining, in they go. One, two, three, four, five, six, seven, eight, nine, ten! Big sister plumps in last, then mother and father; and Billy's brood is safe.

But suppose the danger had been real. Suppose it had been a coyote instead of the bird-man. And suppose one of the owl babies had hung back and said, "Oh, I don't want to go home *yet*." Well, there would have been only *nine* little owlets to snuggle down in Billy's nest. That's all.

No. 221

Pygmy Owl

No. 221a California Pygmy Owl

A. O. U. No. 379a. **Glaucidium gnoma californicum** Sclater.

Synonym.—California Gnome Owl.

Description.—*Adult:* Upperparts warm brown ("deep broccoli brown to light bister or grayish snuff brown"—Ridgway), finely spotted with white or pale ochraceous buff—the spots are smallest, most numerous, and circular on head; fewest or wanting on upper back; larger, cordate or hastate on outer scapulars, wing-coverts and tertials; and everywhere obscurely shadowed by dusky; rounded white spots on outer webs of flight-feathers, ranging into bars; and tail crossed by seven ranks (counting concealed basal and terminal portions) of double spots; a narrow cervical collar of black and

white shadowed by tawny; cheeks, sides, and a narrow band across jugulum, color of back or a little lighter, and similarly spotted; throat and central patch of breast below band pure white; remaining underparts white, coarsely streaked with sepia, the streaks tending to coalesce in stripes centrally. Bill and cere greenish yellow; feet dull yellow, with soles of bright chrome; claws yellow basally, blackening on tips; iris bright yellow. *Immature birds* are darker and redder brown above; the tone of the head is grayer, inclining to slaty, in decided contrast to back; spotting much reduced, nearly confined to forehead and wings. Length 152.4-190.5 (6.00-7.50); wing 93.6 (3.685); tail 65.9 (2.59); bill from cere 10.9 (.43). Female a little larger.

Recognition Marks.—Sparrow size; chunky appearance; carries tail at angle; more unicolored above than Flammulated Screech Owl, and sharply striped (instead of mottled) below; larger than Elf Owl.

Nesting.—*Eggs:* 3 or 4; short oval, white; laid in old woodpecker hole or, rarely, in natural cavity. Av. size 29.5 x 23.4 (1.16 x .92); index 80. *Season:* About June 1st; one brood.

Range of *Glaucidium gnoma.*—Western North America from southern British Columbia south to Guatemala.

Range of *G. g. californicum.*—The Pacific Coast states and southern British Columbia, except the humid coastal strip, east to northwestern Idaho.

Distribution in California.—Resident in timbered Upper Sonoran and Transition zones of the central and southern mountain systems. Intergrades with *grinnelli* in San Luis Obispo County and the Mt. Shasta region.

Authorities.—Heermann (*Athene infuscata*), Jour. Acad. Nat. Sci. Phila., ser. 2, ii., 1853, p. 260 (Calaveras R.); *Sclater*, Proc. Zool. Soc. London, 1857, p. 4 (orig. desc.; Calif.); *Bendire*, Life Hist. N. Am. Birds, vol. i., 1892, p. 403, part; *Sharp*, Condor, vol. ix., 1907, p. 87 (Escondido; desc. nest); *Swarth*, Condor, vol. xii., 1910, p. 109 (San Bernardino Mts.; desc. juv. and nest; food).

No. 221b Coast Pygmy Owl

A. O. U. No. 379a, part. **Glaucidium gnoma grinnelli** Ridgway.

Description.—"Similar to *G. g. californicum* but much browner, the general tone of upperparts varying from deep snuff brown to verona brown; spots on upperparts (especially those on pileum and hindneck) distinctly fulvous or rufescent"—Ridgway. Size not appreciably different.

Remarks.—A recently elaborated form in whose validity I have small faith. There is an undoubted tendency toward richer and darker coloring in all our coastal, especially humid coastal, forms, but the wonder is, in this case, that the tendency has been so stoutly resisted. Examples of this species from Puget Sound do, undoubtedly, average a little richer and darker than specimens from, say, the southern Sierras, yet I have before me a specimen from Seattle which is just perceptibly (say two vibrations to the million) darker than another from the Sierra Madre Mountains, with not enough of difference to found a quinquenomial on.

A "rufescent phase" has not been recognized in our Pacific forms, as it has in typical *G. g. gnoma;* but a specimen (Mus. Vert. Zool. No. 4396) of a bright brussels brown color, taken by Dr. Cooper in Marin Co., in 1873, is either such, or else an extraordinary example of the fading to which these owl-brown shades are liable.

Range of *G. g. grinnelli.*—The Pacific Coast district, broadly, from central California to southern British Columbia and Vancouver Island.

Distribution in California.—Resident in the humid coastal strip, broadly

defined, from Monterey northward, eastward north of the San Francisco Bay region, to include the inner coastal ranges.

Authorities.—**Sclater** (*Glaucidium californicum*), Proc. Zool. Soc. London, 1857, p. 126 (San Jose Valley); *W. A. Cooper*, Bull. Nutt. Orn. Club, vol. iv., 1879, p. 86 (Santa Cruz; desc. habits, nest and eggs); *Grinnell*, Auk, vol. xxx., 1913, p. 224 (measurements); *Ridgway*, Birds N. and M. Am., part vi., 1914, p. 791 (orig. desc.; type locality, Humboldt Bay).

No. 221c Rocky Mountain Pygmy Owl

A. O. U. No. 379, part. **Glaucidium gnoma pinicola** Nelson.

Description.—*Adults:* Similar to *G. g. californicum*, but grayer and general tone of the upperparts hair-brown or grayish hair-brown; streaks on underparts blacker. Dimensions not materially different.

Range of *G. g. pinicola.*—The Rocky Mountain district of the United States, from Arizona to Montana (and west in mountains to confines of *G. g. californicum*).

Occurrence in California.—An adult female taken by Dr. Grinnell in the Panamint Mountains is referred to this form.

Authorities.—**Grinnell,** Condor, vol. xx., 1918, p. 86 (Panamint Mts.).

SAVE to the few initiates, a meeting with this fascinating little fiend must come as a happy accident. Fiend he is from the top of his gory beak to the tips of his needle-like claws; but chances are you will forget his gory character at sight and call him "perfectly cunning," just because he is tiny and saucy and *dègagè*. Look your fill when fate brings him your way, for like the wind, his royal owlets flitteth where he listeth, and you cannot tell whence he comes nor whether he will come again this twelvemonth. When my moment of privilege came, this pocket edition of the powers that prey stood out boldly and unequivocally upon the topmost splinter of a wayside stub in a northern forest, and challenged attention. The gnome gave his back to the road, and now and then teetered his tail, which was otherwise set at a jaunty angle, nervously, as though there were something on his mind. But this preoccupation did not deter the Owl from bending an occasional sharp glance of scrutiny upon the birdman. Then all at once the bird whirled backward and launched himself, like a bolt from a crossbow, at a mouse some sixty feet away across the road. Seizing the "wee, timorous, cowerin' beastie" at the very entrance of his hole, the bird maintained its grasp upon it with both feet, and supported itself against the rodent's struggles by wings outstretched upon the ground. Not until the squeakings of the victim had quite ceased did the captor rise and disappear by rapid flight into the wood.

A second meeting was more prosaic, but still illuminating. The *Zwerg* was out before sunset, but we never should have noticed him if we had not been looking upward, intent on early pussy willows, amongst which he sat, calmly, at the height of a dozen feet. There is always a

curious impersonality about the gaze of this little owl. Even when he does look in your direction (and he does not flatter you by constant attention by any means), he does not appear to focus on you at all. Perhaps this is a trick of the eye, or else arises from its unlikeness to that of other owls. For although the atmosphere on this occasion was full of light, the bird's pupils were dilated to the utmost, and the irides were mere yellow rims.

CALIFORNIA PYGMY OWL

When first put to flight, by approach from below, Owlikins did not flutter off like a soft shadow, as might have been expected, but pitched downward nearly to the ground and buzzed off like a young meteor, fetching up suddenly on another osier branch some fifty feet away. Thither I followed and clambered up to a point within six feet of him on the level. Even then the bird did not appear greatly disturbed, and he deliberately looked away from me as often as at me—affording an example of self-sufficiency which was really startling. In "bout facing" not a muscle of the body moved but only the grim little death's head went round and round. The Little Corporal was not greatly disturbed, either, by the noise; but when I reproduced the Screech Owl cry, he gave me careful attention and appeared so interested that when he flew again it was only for a space of ten feet.

Each time, a little before he shifted, the bird evacuated, with an absurd little stretch and recoil, apparently so as to be ready for eventualities. By the way, what a fierce digestion those little cannibals must have, for their excrement is always glistening white! I do not know how else

to interpret this, save as the passage of the lime and phosphates of their victims' bones, which alone their voracious systems reject.

In spite of his insignificant size, the Pygmy is a dashing little brigand, and no bird up to the size of a Robin is safe from its clutches. So bold is he that upon one occasion, when Mr. Bowles threw a large stick at one, the Owl charged at the passing missile with all imaginable fury. The diet descends not infrequently to insects, but squirrels of twice the Owl's weight are promptly seized when occasion offers. Dark days are as good as night to them, and they are sometimes abroad on bright days as well.

The flight of the Pygmy Owl is not muffled by softened wing-linings, as is the case with the Short-eared and others which hunt much a-wing; it is rather pert and noisy, like a Shrike's. Like a Shrike, also, in extended course it dives with closed wings, then opens suddenly and flutters up with rapid strokes to regain the former level,—describing thus successive loops of flight.

The Pygmy Owl "sings" in a small hollow voice, *klook - klook - klook look look look look look look*, with an effect for tempo something like that produced by the accelerating rebound of a tiny wooden mallet, struck on resonant wood, in quality something between this and the pectoral quaver of the Screech Owl. To our great coarse ears it is, of course, ridiculously inoffensive, but how like the knell of doom it must sound to a trembling Chickadee!

Even more characteristic of the bird's presence in the forest is a weird, tolling note, ventriloquial, elusive, and most marvelously penetrating. At some distance it meets the ear as a mellow rounded *tòòk* or *tòòòòk*, for it must not be conceived too short, nor yet as other than a monosyllable. At close quarters, however, one detects a premonitory sibillation, and at the end a gurgling, muffled ring. The whole becomes then *(si)poolk(ngh)*, and it may be best imitated by a whistle which is conscientiously modified by attendant grimaces. Nor is it easy to exaggerate the penetrating character of this sound. When I first ran it down, I left camp with expectation of encountering its author somewhere within a hundred yards. I followed the siren call through a fringe of woods, across a bit of prairie, through a swamp, over a wooded hill, and into the depths of the forest beyond, where, at the summit of a grim fir tree, at a height of two hundred feet, and at a distance from camp of *more than one mile*, I made out the instigator of the pleasant exercise. Nor had I been deceived by the pixie's flitting, for upon returning to camp, the notes were presently just as conspicuous as they had been at the outset; and subsequent study proved that that Owl was confined in his range to just that particular bit of woods.

Coming south for the winter of 1912-13 Mr. Brooks amazed us by

his mastery of this woodland cry, and he used it as a key to unlock our local treasure boxes of *Glaucidium gnoma*. Not only will the Owls themselves respond to the cry and hurry forward, astonishment and perplexity written in every line, but all the song-birds rally also. It is the master call of the woods, as effective in California as the Screech Owl quaver is in the East.

No. 222

Arizona Elf Owl

A. O. U. No. 381. **Micropallas whitneyi whitneyi** (J. G. Cooper).

Description.—Face highly varied, the disc scheme much modified; loosened disc feathers below and behind eye only, tawny; the white component of the rim present as four isolated solid segments, or emaciated quadrants; a patch before and over each eye, and a distal submaxillary patch white; the submaxillary patches flanked first by dusky and then by cinnamon-rufous, the latter continuous across throat; upperparts grayish brown (hair-brown), finely spotted on head, sides of neck, and back with tawny; the edge of wing white, and large white spots on wing-coverts, inner tertials, outer edges of quills, and outer borders of scapulars, the last confluent in transverse stripe; underparts white, varied by dusky and cinnamon-rufous, the dusky prevailing on sides of breast and sides, elsewhere as fine barring, vermiculation, or clouding, the rufous broadly central in interrupted patchy pattern. Bill pale horn-color; iris lemon-yellow. A rare "brown phase" is also recognized. *Young birds* lack the tawny spotting of crown and the ochraceo-rufous element is otherwise reduced. Length 127-146.1 (5.00-5.75); wing 110 (4.33); tail 49 (1.93); culmen from cere 9 (.35). Female slightly smaller.

Recognition Marks.—The tiniest of owls—warbler size, but of course appearing larger; white in four patches on face; cinnamon-rufous of throat and underparts a rather striking feature.

Nesting.—*Eggs:* 2 to 4; subspherical, white; deposited in old woodpecker holes, usually in giant cactus. Av. of 16 specimens in M. C. O. coll.: 26.4 x 23.1 (1.04 x .91); index 87.5. Some specimens exhibit an index of 92.

Range of *Micropallas whitneyi.*—The desert portions of extreme southeastern California, east to southern Texas and south through Lower California and in Mexico to Puebla.

Range of *M. w. whitneyi.*—Desert portions of southeastern California, Arizona, southwestern New Mexico, and Sonora.

Occurrence in California.—Resident in small patches of Sahuaro cactus found in valley of the Colorado River.

Authorities.—Ridgway, Condor, vol. iv., 1902, p. 18 (Kern Co.; see *Grinnell,* Pac. Coast Avifauna, no. 11, 1915, p. 74); *H. Brown,* Condor, vol. vi., 1904, p. 45 (Colo. Valley, Calif. side; breeding); *Grinnell,* Univ. Calif. Pub. Zool., vol. xii., 1914, p. 129 (Colo. Valley); *Brewster,* Bull. Nutt. Orn. Club, vol. viii., 1883, p. 27 (s. Ariz.; desc. young, nest, eggs, etc.).

A FEATHERED something at the bottom of a hole! Not a very inspiring thought, you say? No; not unless you happen to have been there. Not unless you have "the bug." Yet it is for this that the

oölogist will pack a ladder for weary miles over the desert. For this he will invade the haunts of the "side-winder" and the Gila monster. For this he will wrestle with tediously unending creosote and insinuating cat's claw. For this he will brave the cruel cholla, which looses its bunched lances at a touch, or pierces the feet of the passerby. For this he will

Taken in Arizona *Photo by the Author*

WHERE THE ELF OWL NESTS

ascend rickety heights of sahuaro; if need be, hug its spiny column to meet a flaw of wind or to gain an objective just six inches higher. (The thorns can be removed from the knees and arms at leisure over the camp fire.) For this he enlarges ancient wounds in the venerable cactus, plying his hatchet in the slithery substance of the "giant's" flesh, until his arms are ready to drop off from weariness. And all that he may at last come upon a bundle of feathers at the bottom of one of the holes.

The bundle is elongated, supine, comfortable to the hand, all but non-resistant. Draw it forth, the drowsy little elf! Claws it has, and they clutch convulsively, but they are scarcely strong enough to hurt you. Eyes it has,—yellow, saucer eyes, that might be wrathy if only the elfkin would wake up. Soft, weathered browns and streaky whites with touches of fawn make up a costume as proper as that of Scops or Bubo; but who

can believe that this little midget, who may be entirely hidden in the hollow of your hand, is really an owl? Owl! your grandmother! Why, you want to nuzzle it and call it "pretty baby," and say its daddy ought to be proud of it. But hold! Let us see if there is anything else in that hole. One-two-three-*four* round white eggs, as big as a Flicker's, lying on the hard bottom of the cavity, without a shred of lining. This drowsy infant, this puny, pathetic pickaninny terror is a mother! Doubtless her little wits are working mightily under that mask of insouciance. Let us see. Relax the fingers. *Psst* goes the bird upon the instant and takes refuge in the nearest bush. There she glowers for a moment, and then takes wing for another sahuaro and dives confidently into another hole. It is the last we shall see of Mrs. *Micropallas whitneyi* today.

ELF OWL

Truth to tell, Elf Owls are very difficult of observation. The lore which has grown up about them is scanty and not always consistent. They are strictly nocturnal in habit, are none too noisy, and live a life so secluded that we can do little better than catch them asleep, or note them under artificial conditions.

The classification of nocturnal noises proceeds by elimination, guesswork, or murder. Those who have tried the last-named method

describe the notes of *whitneyi* as a whinny, a rattle, or a *churr*. Major Bendire, who possessed as accurate a knowledge of this bird as any one, speaks of its[1] "peculiar call notes resembling the syllables '*cha-cha, cha-cha,*' frequently repeated in different keys, sometimes quite distinct and again so low that they could not be heard more than 20 yards off." Mr. Frank Stephens, also writing from Arizona, says:[2] "With the evening twilight they came forth from their retreats, and were sometimes dimly seen, but oftener heard calling to one another. They had several different notes one of which sounded like the syllable '*churp,*' while another was a low '*tw-zur-rrr.*' These cries were heard at all times of the night but oftenest in the early evening and again at daybreak." Our own notes made near Indian Oasis, Arizona, were of a bird which, quite after dark, moved from tree to tree in a bristling way and shouted *chit it ik*. These sounds scarcely constituted a rattle, because each syllable was possessed of a distinct individuality, albeit wooden enough. They were not altogether unlike the slapping of a stout string against a board.

Examination of many stomachs has developed the fact that Elf Owls subsist almost exclusively upon an insect diet. Beetles, ants, grasshoppers, and moths are mentioned; and one observer finds that they make sallies into the air for flying prey, after the fashion of flycatchers. No instances of their preying upon other birds have come to light; and, indeed, Elf Owls appear to be on the best of terms with their feathered neighbors.

Elf Owls, chiefly males, are sometimes taken by surprise in thickets, and their behavior on such occasions is quite like that of large Owls, viz., drawing themselves up rigidly with feathers "appressed," and looking like badly bored majors. We took a specimen, a male, from a hackberry tree near Tucson, who on this account looked a half size taller than he should. Stephens thinks that the male may be partially gregarious during the breeding season, for on one occasion he found two "sitting out" in a bush, and on another—five.

But, after all, we must come back to that old woodpecker hole in the sahuaro to get any further light upon the Elf Owl. Eggs are deposited from the 10th to the 20th of May, and the youngsters are covered soon after birth with abundant white fuzz. The female is likely to be in close attendance whatever the age of the chicks, but the male sleeps out invariably.

One special privation the Elf Owl is sometimes called upon to undergo. An unseasonable rain will ruin the most promising prospects, if the shelter be a sahuaro. It's a long time between drinks for the thirsty giant, so

[1] "Life Histories of North American Birds," Vol. I., p. 412.
[2] Bull. Nutt. Orn. Club, Vol. VIII., 1883, p. 28.

when the opportunity comes, its sponge-like tissues are charged with moisture to the summit of the column. The pressure becomes so great that excess water seeps into all cavities in spite of their hardened gourd-shell-like linings; and these hollows become completely flooded. In this way the nesting of 1917 was practically wrecked by a May storm. It is possibly for this reason that Elf Owls retire from the northern portions of their range in winter.

No. 223

Road-runner

A. O. U. No. 385. **Geococcyx californianus** (Lesson).

Synonyms.—Chaparral Cock. Ground Cuckoo. Paisano. Snake-killer. Correcamino.

Description.—*Adult:* Feathers of upper plumage (when wings folded) and breast, metallic-colored centrally, and edged successively with ochraceous-tawny and white, the webs of the edgings separated, imparting to the whole plumage a loose, ragged appearance; plumage of head and neck thickly studded with fine, black, bristle-like, denuded shafts; that of belly and flanks thread-like, fluffy, and towsled; that of lower back silky, loose in texture, but close-lying; basal color of crown (where nearly pure) and cervix, purplish black; that of upper back, scapulars, and wings bronze-green; tail graduated for three or four inches, the central pair of rectrices and upper tail-coverts dark bronze-green or mingled greenish and metallic violet; the remaining rectrices metallic bluish, purplish, or greenish black, broadly tipped with white; feathers of breast, changing insensibly on sides of neck, with purplish black reduced nearly to shaft-streaks; hence, breast prevailingly ochraceous tawny; chin and throat white; belly and flanks flaxen; lining of wings dusky throughout; lower back and rump (*entirely concealed by folded wings*) dull grayish brown; a series of stout, sharply-descending black lashes from upper eyelid; a bare space around and behind eye (nearly meeting fellow on crown) blue, bluish white, changing posteriorly to livid orange. Bill and feet dusky horn-color; the tarsi the same color basally, but guarded in front by large and somewhat irregular yellowish scales. *Young birds* are strikingly similar to adult, but retain nesoptiles as scattering, white, thread-like appendages to feathers of upper plumage for some time. Length 533.4-635 (21.00-25.00), of which the tail 254-330.2 (10.00-13.00). Av. of 10 specimens of both sexes: length 575.8 (22.67); wing 170.9 (6.73); tail 303.5 (11.95); bill 48.2 (1.90); gape 66 (2.60); tarsus 62.5 (2.46).

Recognition Marks.—Crow size (making some allowance for tail); long tail, terrestrial habits, and eccentric ways unmistakable.

Nesting.—*Nest:* A bulky platform of interlaced sticks and twigs lined, or not, with bark-strips, tufts of grass, feathers, or soft miscellany; 12-18 inches in diameter; 4-12 inches in depth; placed at moderate heights in cholla cactus, mesquite clump, or live-oak tree, or even in cranny of cliff. *Eggs:* 3-9 (12 of record), usually 4; ovate or short ovate; dull white, or dingy yellow. The outermost calcareous layer is occasionally etched away irregularly, after the fashion of other cuckoos, and in such case is apt to be more deeply tinged with yellow. Av. size 39.1 x 30 (1.54 x 1.18); index 76.6. *Season:* March–July, but usually April or May; one, two, or three broods.

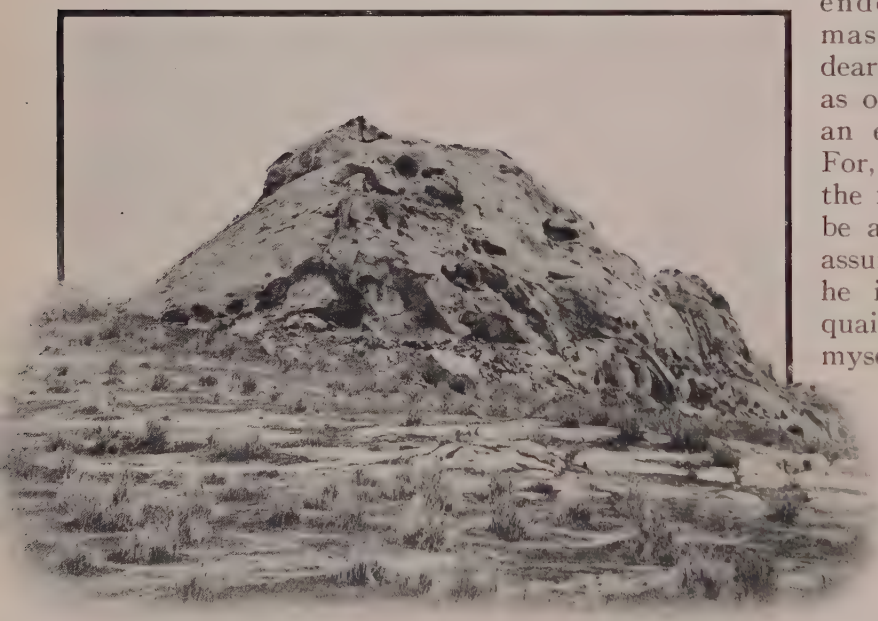
The Road-runner

General Range.—Resident in Lower Sonoran and (locally) in Upper Sonoran life zones of the southwestern United States, north to upper Sacramento Valley in California; southern Utah, Colorado, and Kansas east to Gulf Coast and Texas, south through Lower California and over the central plateau of Mexico to Puebla.

Distribution in California.—Resident in both arid and lightly timbered sections of the Sonoran life zone, north, east of the Sierras, to Big Pine in Owens Valley; west of the Sierras to the upper portion of the Sacramento Valley. Avoids the humid coastal strip, but has been found as far northwestward as San Geronimo (Marin County), and Sebastopol (Sonoma County). Not found on any of the islands.

Authorities.—Lesson (*Saurothera californiana*), Compl. OEuvres Buffon, vol. vi., 1829, p. 420 (Calif.); *Bendire*, Life Hist. N. Am. Birds, vol. ii., 1895, p. 13, pl. 1, fig. 2 (egg); *Grinnell*, Condor, vol. ix., 1907, p. 51, map (Calif. range); *H. C. Bryant*, Univ. Calif. Pub. Zool., vol. xvii., 1916, p. 21, pls. (food and habits); *Hunt*, Condor, vol. xxii., 1920, p. 186 (running speed).

WE HAVE always contended that the Almighty has a sense of humor. Hence we point with pride to another of California's native sons, curious, conscious, and contradictory, the ingenu and adept of the desert, quaintest of feathered creatures. But we will not be understood as holding our favorite up to ridicule. Droll the bird is, even comic on occasion; but the humor of the Creator has been kindly, and he has endowed this desert masterpiece with endearing qualities, such as ought to assure him an enduring welcome. For, however grotesque the fowl may appear to be at first sight, I can assure the reader that he improves upon acquaintance; and as for myself, I confess toward the bird a good fellow feeling which is compounded of laughter and tears. The Spaniards called him *Paisano*, "the countryman," and recorded thereby



Taken in Kern County *Photo by the Author*

A CASTLE IN THE COW COUNTRY

THE NEST SHOWN IN THE NEXT ILLUSTRATION IS FOUND HERE

their appreciation of his uncouthness and worth —a diamond in the rough. More prosaically, we call him the Road-runner, the bird who tries conclusions, or else seeks escape, by running instead of flying. In the western portion of his habitat, where the running is not so good, we call the bird Chaparral Cock, and recognize his right to rule over that interminable half-forest which fills the landscape, and fills the eye, but never the pocketbook, of the Californian. Paisano makes his home here, but his heart is in the desert. For even where trees have become an accepted part of the Chaparral Cock's setting, he treats them rather as just so many rougher bits of desert to be gotten over, a-foot; and so he climbs, scrambles, runs, or leaps into and about a tree, instead of flying; and when he comes to quit it, he either leaps again, or volplanes to the ground. The bird is incapable of upward, or "earning" flight, but a clever sail from a tree-top, assisted by some flapping, will carry him a hundred yards or so, if need be.

Taken near Santa Barbara *Photo by the Author*

A WAYSIDE GLIMPSE

Since these are sadly civilized days, the chances are you will see your first Road-runner in a little hillside pasture dotted with trees. The bird stands at attention, eyeing you with mingled coquetry, mockery, defiance, and friendly curiosity. It is your next move,—or would be if the bird had not just then caught sight of a spider and darted nimbly after it.

Taken near Santa Barbara
Photo by the Author

"CROUCHING WAS THE FAVORITE ATTITUDE"

Then, scrutiny forgotten, the bird proceeds to have as much fun in that commonplace pasture as a boy at a circus. The mere suggestion of a cricket brings this racing outfit all up standing with neck outstretched, crest erected, and tail raised to an angle of forty-five degrees. It is a thrilling moment; and these thrillers recur in the active life of the cuckoo about once in every six seconds. The insect dispatched, the bird suddenly leaps six feet high to snatch a passing beetle. Bravo! Gusto! Avanti! *Mais non!* the bird recalls your gaze, assumes instantly a meek expression, tilts the tail sidewise in token of self-effacement, and makes as though to leave. As she goes, she minces in pretended fastidiousness, or reels in pretended intoxication, until—*psst!* the bird is faced about, head up, tail up, every outline filling the picture of clownish exaggeration. "Gracious! I nearly stepped on an ant!" And just as you prepare to dismount and bring your binoculars to bear upon the bird, she melts into a fringe of sage, and the exhibition is over for that day—mayhap for that month!

Seen on the desert proper, the Road-runner strikes you instantly as being the fitting thing. The purplish-blue and bottle-green of the upperparts, relieved by whitish edgings, fade before a background of glistening cholla or of fiery sand. If you are moved to pursuit, the bird laughs at you over giant strides, as, head down, tail depressed, it makes off with incredible ease. By a side swing of the tail the bird can round a bush with the utmost alacrity; or by a sudden expansion of that member, can put on the brakes instanter. With its long hooked beak the bird can deal out justice to centipede, horned toad, or lizard, even snake or scorpion; and it is interesting to note that the bird's head is protected against, say, the insensate lashings of a lizard's tail, by an array of stiff bristles scattered through

its plumage. Those immediately over the bird's eye are especially sturdy, and there can be no doubt of their defensive purpose. As for the Road-runner's legs, they are a marvel of speed and endurance, though a horse or a dog may tire them out. The footprints, two toes forward and two to the rear, are among the most characteristic sights of the desert; but we may not suppose that this double-toed arrangement makes for especial efficiency upon the ground. Indeed, it is altogether probable that this bird, whose ancestors were, and whose cousins are, strictly arboreal, is in so far handicapped. The hinder toes are weak; and, surely, three toes in front would give a better traction.

But in all this we are failing to give a tenth part of the witchery and grotesque appeal which are bound up in this wraith of the desert. The Spanish vaqueros felt it and left a hundred tales, now chiefly legendary, of the bird's cleverness and bent for mischief. The best and oldest tale, the classic of the range, I heard myself from a bandy-legged cowboy. It runs as follows:

When a Road-runner discovers a rattlesnake, asleep, he quietly fetches joints of cholla cactus until he has a perfect circle, or fence, built around his snakeship. Then he leaps into the circle, and out again after a sharp peck, which wakes the snake and starts the fight. Another nip and the battle is on in earnest. The enraged rattler tries to get at the bird, and as often as he starts over the dead-line, recoils from the prick of

Taken in the Mohave Desert *Photo by Pierce*

YOUNG ROAD-RUNNERS

the merciless thorns. Finally, in a fury of impotence, the snake bites himself, and yields his carcass to the exultant bird. My informant had seen this done repeatedly, and left the impression that rattlers, as a consequence, were very "skurce in these parts."

Taken in San Diego County
Photo by D. R. Dickey

NEST OF ROAD-RUNNER IN TUNAS AND CHILICOTHE

More probable, in fact well authenticated, are the stories that Road-runners destroy young birds, as well as mice and other minor mammals. These matters have been pretty well thrashed out;[1] and while it is established that some damage is done to bird life, it appears to be a quite incidental and inconstant trait. Of more consequence is the bird's enormous consumption of grasshoppers and crickets; and these form more than one-third of its entire diet. Beetles, cut-worms, and caterpillars come next in order, and of the latter, hairy caterpillars, "woolly bears," which no other bird, save Cousin Cuckoo (*Coccyzus americanus occidentalis*), will touch. Beetles, crickets, scorpions, lizards, and small snakes are swallowed whole; and the bird boasts a digestion which our American Croesus, he of the bread-and-milk diet, would surely envy. The ten per cent of vegetable matter with which the bird varies its regimen is found to consist almost entirely of "sour berries" (the fruit of *Rhus integrifolia*), and these evidently serve as sauce for snake and centipede *a la mode*.

Of the notes of this cuckoo, very little has been said in literature, and I am not able myself to do more than report progress. Its usual daytime call-note is most like the whine of a dog which has been several times refused admittance to the house, *Ookh ook(h) ook ooooo*, trailing off into despair. The despair of the bird is manifestly the mock heroic of the pleading lover. This pathetic sound, ventriloquistic and unplaceable, is one of the surest marks of springtime, at least along the brush-clad hillsides of southern California. A louder and much rarer "song" is uttered

[1] See an exhaustive inquiry by Dr. H. C. Bryant, University of Cal. Pub. in Zool., Vol. 17, No. 5, pp. 21-58, 1916.

by the bird from the summit of a live oak or from some other eminence. It consists of a series of sepulchral, somewhat owl-like notes, uttered in a swell, *kwoke* KWOKE KWOKE *KWOKE* KWOKE KWOKE *kwoke.* This, too, is somewhat ventriloquial, as well as low and penetrating; but I am positive of its source. A much more frequent, as well as endearing sound, is the soft *kook'-oooo* of the evening hours. This note is so soft, so tender, and so sweetly musical, that one immediately forms a new and higher opinion of this gallant lover. Surely here is romance. All is, I cannot certify that the sound actually does come from the Cuckoo and not from the Ground Owl (*Speotyto cunicularia hypogœa*). The uncertainty is shameful, but *que voulez vous?* One cannot pour salt on birds' tails in the midnight watches. All I can say is that I have repeatedly heard these amorous notes in country where I knew the Road-runner to be present, but could not discover the owl. And I have fancied that the Cuckoo notes were softer and a little more prolonged than the well-known madrigal of *Speotyto.* Here is a mystery and a challenge.

Taken near Santa Barbara
Photo by the Author

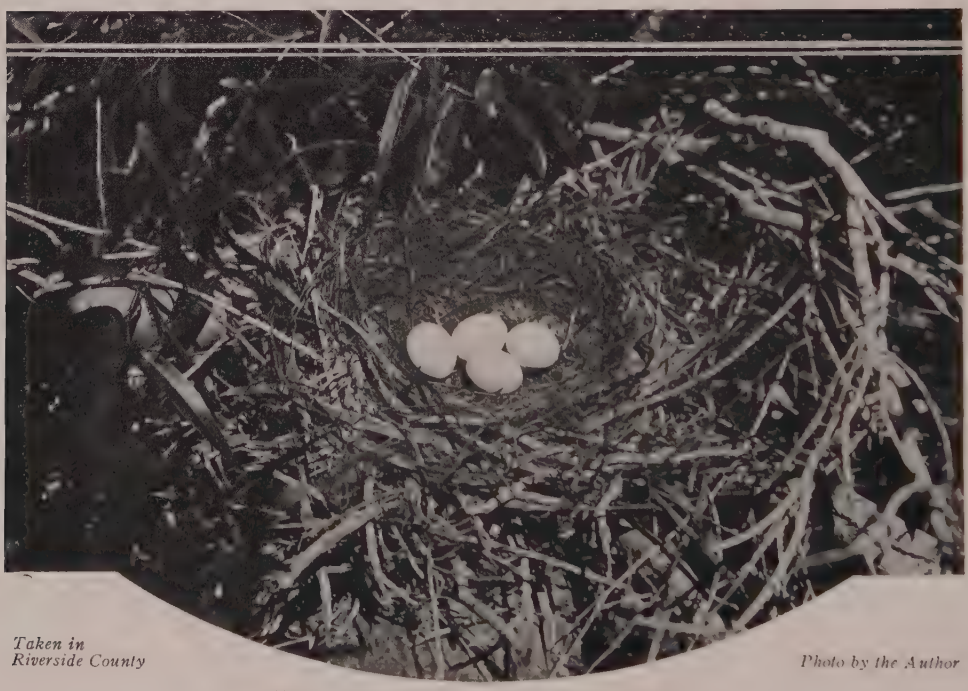
"SEEMED DIVIDED IN HER MIND"

We know that by some such approved methods the lady's heart is won, and we are pleased to add that the promises made in the springtime by Sir Geo Coccyx are not lightly broken. In nesting the birds prove themselves very adaptable. If in the open desert, the lowly shelter of the cholla cactus will suffice; but if mesquite trees are available, the bird much prefers the security of a horizontal limb or trunk. In the chaparral, the cover of the densest shrubs is sought, or else the live oaks. I have found these birds nesting also in the convenient crannies of the sandstone cliffs. In one such station overlooking the Antelope Plains of western Kern County, the bird sat with her tail bent forward sharply by the rear wall of her niche. When disturbed, she did not fly directly, but scuttled nimbly along the face of

the wall, then sprang into the air for a long sail which ended in the sage.

In no respect does *Geococcyx* betray its cuckoo affinities more clearly than in the irregularity of its egg deposition. Eggs of a dull white or dingy yellowish cast may be laid as frequently as every other day, but usually depositions are three or four days apart; and since incubation begins whenever the bird happens to feel like it, it is a commonplace to find the entire gamut from fresh eggs to pin-feathered young exhibited in a single nest. Four is a common number for a set, but I have seen seven, and nine are of record.

A glimpse of the home life of *Geococcyx* is permissible, and may be best accomplished by the following record of a single nest. On the 11th day of June, 1915, my son William found a nest placed twelve feet up and near the end of a branch in a thickly shaded portion of a live-oak tree in W. E. Johnson's hillside pasture. When the parent bird flushed, she disclosed three young, of which the youngest had just hatched, and one egg. I paid the place a clandestine visit after sundown, and the old bird sat tight while I broke twigs right beside her, and in other ways prepared the scene for photography on the morrow. Arrived, then, on the morning of the 12th I was pleased to find the mistress at home. She did not, however, sit to a

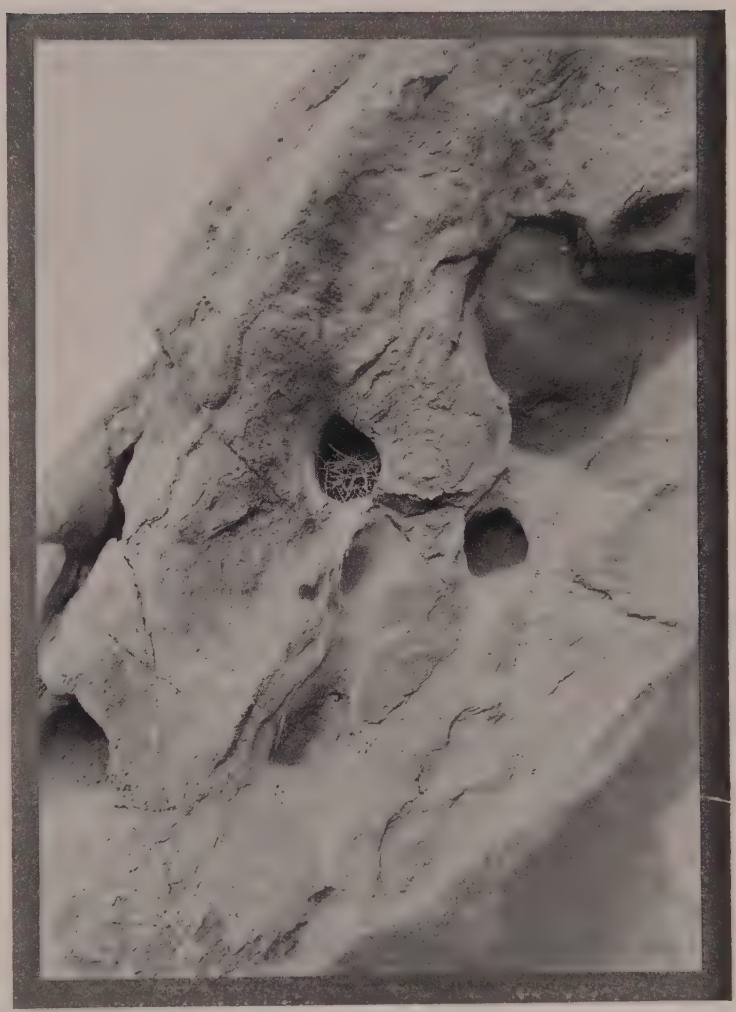


Taken in Riverside County

Photo by the Author

NEST AND EGGS OF THE ROAD-RUNNER

portrait, but glided off at six feet, and proceeded to give me an exhibition of plain and fancy gliding, flopping, tree-dancing, and dramatic posturing, such as I have never seen quite the like of before or since. Crouching was the favorite attitude, and this she accomplished either lengthwise or crosswise of a limb. If there was room for her tail to hang straight down, so much the better, for this produced a sort of roguish peekaboo pose. But if there was not room, the tail was welcome to stand straight up, or any old way.



Taken in Kern County *Photo by the Author*

A CELL IN THE CASTLE

REACHED BY RUNNING ACROSS THE FACE OF THE ROCK

The mistress seemed divided in her mind whether to lure or frighten me, and so she tried both. With the last-named effort went a series of low grunts, or coos, or moans, almost inaudible, alternating with a snapping of the mandibles, which was quite distinct in sound and a little disconcerting. Once she came within two feet of me, and I eyed her warily, for a tweak from this lady's bill would be no light matter. But for the most part she tried luring, having recourse for the purpose again and again to the ground. Here she advanced by little runs, alternating with crouching postures. Presently she developed the mouse-squeak ruse, feebly and tentatively at first, but afterwards sharply and convincingly. Two of these performances were accompanied by a slight rolling or treading motion, as though she had learnt the game directly from the Long-eared

Owl, who is a well-known adept at it. The squeaking, too, was well-timed, and not overdone. This ruse was soon dropped and not repeated thereafter.

In view of my refusal to follow the lure, the bird returned frequently to the depths of the tree. For this purpose she either ran up swiftly, or hitched along by starts and pauses, or else leaped by a single effort upon one of the lower branches. In despair, finally, she absented herself outright, whereupon I did the same. I found her brooding upon my return, and the same tactics were repeated with less fervor.

The youngsters, four of them now, exhibit a regular gradation of size, though perhaps not greater than a deposition of eggs on alternate days would account for. Only the eldest had his eyes open. The birds are dark in color, with a sparing but showy array of stiff white hairs, or bristles. The feet are exactly like those of the parent, that is, with two toes in front and two behind. But the bills, or snouts, are very different, and are curiously suggestive of those of birds of prey, especially vultures, for the nostrils are very prominent and placed well forward. When disturbed, as by expectation of food, or in assuming the maternal presence, the youngsters keep up a curious impersonal sound, somewhat between a hum and a buzz. This sound is produced with closed mandibles, and is still very penetrating to the ear.

The next visit was paid to the Road-runner's nest on the morning of the 14th, and an attempt was made to photograph with the set camera. The bird was not brooding at 8:30, but she presently appeared beside me in the tree, and was bolder and more menacing than before. Once, while I was adjusting the tripod, she actually glided over my leg, and I was afraid she would take a sly nip at an unwary finger.

Presently I take up a position at the base of the tree, bulb release in hand, whereupon the bird arranges a regular tour of inspection. For the most part she lurks behind some chaparral across the little canyon, but ever and again she appears around the end of the little brush-patch in plain view, crouches, glides, crouches again, scuttles, and so traverses a forty-foot stretch, which takes her out of sight again. In this operation she has been joined by the male, who insists, after some efforts at disuasion on his mate's part, upon securing some furtive glimpses of the monster. He is manifestly troubled, but yields precedence to his insistent wife. She will attend to the matter. And now another strange note has developed, or rather clarified itself to consciousness. It is somewhat between a squeak and a hoot and a sneeze, or is a combination of all three, and it is terminated by a violent but rhythmical clicking of the mandibles. What can it mean?

A hasty visit to the Road-runner's nest on the 21st instant dis-

covers a brimful basket of very surly youngsters, and even the two youngest members of the quartette click their mandibles threateningly. On the 24th the young birds are still in no wise prepared to leave the nest, but one bumptious youngster, and not the oldest either, manages to heave his pot-belly over the edge of the nest, where he blinks at me belligerently (no pun intended).

The mother bird coughs and wheezes upon the ground, and I see the purpose of this strange note at last. The bird is *pretending to disgorge some lately captured tidbit.* The performance is very realistic, even descending to the paroxysmal movements of eructation, the attendant contact of the bill with ground—where the Barmicidian morsel is deposited—and the ensuing relief. The coughing accompanies the effort, and makes it paroxysmic. Splendid! The ruse is too frequently repeated, however, to be convincing. Moreover, the coughing is sometimes given, as on previous occasions, half-heartedly, and without the attendant disgorgement play.

On the first day of July, which was my next chance to pay the nest a visit, nothing as to the whereabouts of the youngsters was discovered. I suspect, however, that they were "freezing" in the depths of the foliage, for I thought I detected the old bird giving hasty words of caution before she sailed, magnificently, from the tree-top.

Of the Road-runner in captivity a separate chapter should be written. It really is a most engaging pet. Always original, whimsical, grotesque, it exhibits also a marked affection for its master, as well as a friendly regard for humans in general. Indeed, if the birds were properly encouraged, instead of being systematically frightened, they would adapt themselves very willingly to the ways of men. Mr. and Mrs. William Otte, of Santa Barbara, have befriended the Road-runners along the Riviera crest, until they have come to haunt their place continually; and once a pair nested successfully in their garage. Mrs. Grinnell, of Pasadena, kept a Road-runner which had the freedom of the house, and which kept her friends in a fever of interest by its artless, eccentric ways. Most curious was its custom of backing closely into a corner for the night, with its tail held bolt upright along the wall.

Captivity reveals the fact that the bird is not closely dependent upon water. It will drink only at intervals of three or four days; but when it does indulge, it drinks copiously,—fills up as for a long sojourn in a distant desert. As for food, it is a good "rustler," and keeps the place clear of mice, beetles, slugs, and cockroaches. Unfortunately, nestling birds have to be kept out of harm's way—and chickens too, as like as not. If proffered a small bird, even though adult, the Road-runner will bolt it feathers and all; and the fact that it does not eject

the indigestible portions, such as bones, feathers and claws, is proof anew of the bird's excellent digestion.

No other bird is so bound up with the historic, romantic past of California. No other has so caught the fickle focus of public curiosity, or been rumored in so far a fame. Yet few others have been so penalized for such prominence. From the roisterous vaquero, who pursued the bird at sight, to the intoxicated possessor of the modern pump gun, who shot up everything in sight, the bird has suffered in cruel measure. Now that we have good laws, it is time to add good sense and good will, and so make amends for the stupid and depauperizing excesses of the older generations.

No. 224

California Cuckoo

A. O. U. No. 387a. **Coccyzus americanus occidentalis** Ridgway.

Synonyms.—Western Yellow-billed Cuckoo. Rain-Crow.

Description.—*Adult:* Above nearly uniform, satiny, brownish gray, with something of a bronzy-green sheen; the inner webs of the primaries cinnamon-rufous. the outer webs and sometimes the wing-coverts tinged with the same; central pair of tail-feathers like the back and completely covering the others during repose; remaining pairs sharply graduated,—blackish with broad terminal white spaces, the outer pair white-edged; a bare space around the eye yellow; underparts uniform silky white or sordid. Bill curved, upper mandible black, except touched with yellow on sides; lower mandible yellow, with black tip. *Immature:* Similar to adult, but plumage of back with slight admixture of cinnamon-rufous or vinaceous; tail-feathers narrower,—the contrast between their black and white areas less abrupt. Length 292.1-330.2 (11.00-13.00); wing 148 (5.83); tail 147 (5.79); bill 27.1 (1.067); depth of bill at base 8.9 (.35); tarsus 27.4 (1.079).

Recognition Marks.—Robin to kingfisher size; slim form and lithe appearance; brown above, white below; sharply graduated, broadly white-tipped tail-feathers.

Nesting.—*Nest:* A careless structure of twigs, bark-strips, and catkins; placed in trees or bushes, usually at moderate heights. *Eggs:* 3 or 4; elliptical oval; pale niagara green. Av. size 30.8 x 23.2 (1.21 x .91); index 75. *Season:* May–July; one brood.

Range of *Coccyzus americanus.*—Temperate North America; in winter south to South America.

Range of *C. a. occidentalis.*—Not common summer resident of western United States, north into southern British Columbia, east to eastern Colorado and western Texas, and south through Lower California and Chihuahua. Winter home not distinguished from that of species.

Distribution in California.—Summer resident of Sonoran zones, chiefly west of the Sierran divide; locally common in willow associations of river valleys only. Recorded north to Sonoma County, Shasta County, and Bishop in Owens Valley.

Authorities.—**Newberry** (*Coccygus erythropthalmus*), Rep. Pac. R. R. Surv., vol. vi., 1857, p. 92 (Ft. Reading, Shasta Co.); *Shelton*, Condor, vol. xiii., 1911, p. 19 (nesting habits, etc.; Sonoma Co.); *Jay*, Condor, vol. xiii., 1911, p. 69, figs. (s. Calif.; desc. and photos of nest, eggs, and young; habits).

CALIFORNIA CUCKOO

"SUMER is icumen in
Lhude sing cuccu!
Groweth sod, and bloweth med,
And springth the wude nu—
Sing cuccu!"

The California Cuckoo

So sang one of the earliest of the English poets, of *Cuculus canorus;* but if we were to wait for the California Cuckoo to bring us summer we should lose our reputation for peerless Marches and full-blown Aprils. For the California Cuckoo is among the laziest of birds. When he does step in, surreptitiously, and hides in the greenery of late Maytime, the drama of summer has already reached the third act, and his services as enunciator are no longer required. Our bird comes silently, as well, and it is only after a week or two of residence, "getting settled," that he begins to sound the notes which will put him in touch with his fellows or, perchance, lead to him the lady love of the season. The song then is a series of explosive pouting notes: *Cuckookook ookookook ook kook kook kook*, first energetically then *rallentando et diminuendo.*

Although the bird enjoys a rather wide distribution throughout the forested lowlands of the Pacific slope, the sight of a California Cuckoo is one of the rarest; and save in some few favored places, recognized breeding haunts, his voice is the rarest of sounds. Although I have lived for twenty-five years in the West, and am accounted fairly alert of ear, I should hesitate to tell how few times I have heard this bird—say six or eight. Those more favored by reason of acquaintance with the birds' restricted breeding haunts[1] tell us that upon arrival in the north the birds keep to the higher woodlands for a period of two or three weeks, after which they retire to the willow bottoms to breed. After this their entire aspect changes. No longer shy and difficult of approach, they show themselves more or less freely, as those who belong to the country; while a bird found on the nest will almost suffer the caress of a hand before darting off quietly to be lost in the foliage. At such times, too, the loud challenge "song" gives place to a low guttural note, still "*kuk, kuk, kuk,*" with which the bird betrays anxiety, or signals to its mate. Then, too, a sort of exorcism is undertaken. The bird employs its ventriloquistic gifts and fills the neighborhood with weird unplaceable *kuk kuk kuk* sounds, which are intended to be for the intruder an accusing voice of conscience, or a reminder of avenging powers which haunt the woodland.

But apart, if possible, from its nesting anxieties, it is worth while to examine this genius at close range. Most birds prefer to face the enemy, so as to keep his every movement well in eye; but Cuckoo presents his back, a cold gray affair (save for russet wings), from behind which he peers now and then, turning his neck and giving you one eye in a lofty, well-bred way. I recall no other bird whose gaze is so calm, so direct, so fearless, yet withal so decorous. But nothing escapes him. He is not so vulgarly devoted to curiosity that he forgets business. Mercy, no! You may be within ten feet of him, but he plucks and swallows a caterpillar with as

[1] See especially A. C. Shelton in "The Condor," Vol. XIII., Jan., 1911, p. 19, and Antonin Jay, Condor, XIII., March, 1911, p. 69.

Taken in Los Angeles County *Photo by Antonin Jay*

BIG ENOUGH TO KOOK

little ado or apology as if you were in the next county. But make a false motion, and the bird glides away into the deeper foliage with an ease and grace born of long practice. Silken, silent, sinuous, are adjectives which you instinctively apply to this sober, sly bird, as he steals through the upper branches, scarcely seen, but not unseeing, to emerge at length from the opposite side of the tree, and to dart away like a little brown arrow into some distant copse. A close study of the California Cuckoo's breeding confirms the opinion gained elsewhere, that *Coccyzus americanus* is a bird of highly irregular habits. It nests in May—it nests in August. It builds a nest on a rush order and deposits three eggs therein all within the space of a week—it loafs and dodders for a month, so that fresh eggs and young are found together in a nest. It lays one egg and attends it devotedly—or five and deserts them. It erects a slovenly platform which would disgrace a dove—or it builds a sturdy nest which would do credit to a thrasher. Or, again, it does not build at all, but uses instead a deserted nest of some other bird, Mourning Dove or Black-headed Grosbeak. And, lastly, it is a model of the home-keeping virtues, rearing and tending its own as all virtuous parents should; or, yielding to the taint of cuckoo heredity, it inflicts its casual offspring upon a foster mother, and goes its way unheeding. This last trait is worthy of particular notice, for it is exceptional, and not very numerously recorded in the West. Indeed, I am unaware of more than two instances, both recorded by Mr. Antonin Jay: On July 12, 1903, his brother, the lamented Alphonse Jay, took a set of Cuckoo's eggs from a Mourning Dove's nest which contained three eggs of the Cuckoo and one of the Dove; and again on July 14, 1907, he found a nest of the House Finch which held one egg of the Cuckoo and two of the rightful owner.

As a locally exceptional instance, Mr. Antonin Jay records the finding, on May 10, 1901, of a nest which contained three newly hatched but *dead* young of the Cuckoo, and two eggs of the Mourning Dove well advanced in incubation. The Dove was sitting when the nest was found, and the construction of the nest appeared to point to the Dove as the

builder. The interpretation (which is my own) is this: The Cuckoo finding a completed but still unoccupied nest of the Mourning Dove deposited her own eggs therein. Whether she actually intended at this time to impose upon the Dove, we do not know—perhaps the Cuckoo did not know—and that she may not have known or cared is precisely the point of interest in a study of incipient parasitism. The Dove, knowing the nest to be rightfully hers, although her own hour had not yet come, covered it sufficiently to start developmental processes in the Cuckoo's eggs. The deposition of her own eggs followed in due course; and having an instinct to cover them for a sufficient time, she ignored the premature arrival of the derelicts, and neglected to feed them before they perished. Meanwhile, the rightful mother of the future foundlings, seeing that the complaisant Dove was willing to undertake an arduous duty in her stead, took herself off comfortably to caterpillar-hunting, and presently forgot the whole episode. In some such way, at least, the ancient wrong-doing of the Cuckoo began.

Taken in Los Angeles County *Photo by Antonin Jay*

NEST AND EGGS OF CALIFORNIA CUCKOO

It might fare ill for other song-birds if the Cuckoo abounded; but this much is sure, the advent of the Cuckoo would be a benison, in his own right, to the farmer. This testimony from an eastern author[1] is apropos: "Few birds are of so much service to the farmer. Especially are the fruit growers and nursery-men its debtors. In early spring they love the orchard. I have known them to destroy every tent caterpillar (*Clisiocampa americana*) in a badly infested orchard and tear up all the nests in half a day. While they may have eaten some caterpillars, out of most of them the juices were squeezed and the hairy skin dropped to the ground. Almost every watchful fruit grower has had a similar experi-

[1] Amos W. Butler, in "The Birds of Indiana."

ence. Prof. F. H. King found upon examination, that one had eaten nine larvæ of a species that destroys the foliage of black walnut trees. They also eat many cánker worms . . . . . While they occasionally eat some of the smaller fruit, their work all summer long is to protect the fruit tree from its enemies. Although it has been accused of robbing the nests of other birds and eating their eggs, I do not believe the charge has been sustained."

In July, 1916, we found the snowbrush (*Ceanothus cordulatus*) at Sisson so infested with caterpillars that the entire chaparral cover was being ruined. Taken together there were literally bushels of the creatures. The solitary Cuckoo we encountered was having the time of his young life; but what was he among so many!

No. 225

Band-tailed Pigeon

A. O. U. No. 312. **Chlorœnas fasciata fasciata** (Say).

Synonyms.—Wild Pigeon. "Passenger Pigeon" (as frequently misidentified). White-collared Pigeon.

Description.—*Adult male:* Head and neck all around and underparts, changing on abdomen, dull wine-purplish, darkest on crown and chest, lightening, more bluish, on chin and upper throat; a sharp, narrow cervical collar of white; behind this a crescentic patch of rounded feathers in scale-like arrangement, iridescent, with brassy and bronze-green reflections; back, scapulars, and tertials lustrous purplish-slate; rump, upper tail-coverts, wing-coverts, lining of wings, sides and flanks ashy blue; crissum and under tail-coverts white; flight-feathers dusky; tail ashy blue basally, ashy brown terminally and crossed by a broad subterminal band of dusky. Bill yellow, tipped with black; legs and feet yellow with black nails; a prominent red eye-ring. *Adult female:* Like male, but somewhat paler, especially below, where also less purple and more brownish; cervical collar and metallic crescent *not* "subdued or wanting." *Immature birds* lack the cervical collar and crescent, and are extensively washed with rusty brown below, especially on breast; wing-coverts paler ashy, and ashy-white-edged. Av. of 4 males and 6 females: length (skins) 372.2 (14.65); wing 219.8 (8.65); tail 134.4 (5.29); bill 17.4 (.685); tarsus 27.1 (1.067).

Recognition Marks.—Little hawk size; a little larger than a domestic pigeon and appearing much like one; tail-feathers rounded; cooing notes; noisy flapping flight.

Nesting.—*Nest:* A rude platform of sticks placed at any height in oak tree or conifer, or even upon the ground. *Eggs:* usually single, but 2 of record; elliptical oval or abruptly pointed at one end; pure white. Av. size 39.1 x 27.5 (1.54 x 1.08); index 70. *Season:* February–October, but usually May–July; one brood.

Range of *Chlorœnas fasciata.*—Western North America from southwestern British Columbia south to Cape San Lucas and Central America.

Range of *C. f. fasciata.*—As above minus southern Lower California.

The Band-tailed Pigeon

Distribution in California.—Breeding locally and in variable numbers in Transition and timbered Upper Sonoran areas west of the Sierran divide, but chiefly in mountainous districts. The normal winter home of the species, so far at least as the Pacific states are concerned, is in northern and interior Santa Barbara County and in Ventura County, but their exact distribution at this season depends upon the acorn crop.

Authorities.—Vigors (*Columba monilis*), Zool. Voy. "Blossom," 1839, p. 26, pl. 10 (Monterey); *Bendire*, Life Hist. N. Am. Birds, vol. i., 1892, p. 122 (habits, nest and eggs); *Gilman*, Condor, vol. v., 1903, p. 134 (s. Calif.: habits); *Grinnell*, Condor, vol. xv., 1913, p. 25, map (occurrence in Calif., food, habits, destruction, etc.); *Grinnell, Bryant and Storer*, Game Birds Calif., 1918, p. 575, figs. (general account).

WE FIND, rather to our surprise, that neither dictionaries nor bird-books define a difference as between "pigeons" and "doves." The terms are everywhere treated as synonymous. The case is analogous to that of "toadstool" and "mushroom." The mycologist assures us that these two terms are absolutely identical, yet popular apprehension persists in regarding all poisonous mushrooms as toadstools, and in reserving the name mushroom for edible toadstools. Is there not really a somewhat similar feeling in regard to the use of "doves" and "pigeons"? I think I voice the popular feeling when I define doves as *Columbids* which, by reason of small size, familiarity, gentleness, or other endearing qualities, are not properly regarded as fit objects of the chase. Pigeons, on the other hand, are those *Columbids* which, by reason of large size, gregariousness, stolidity, or general default of engaging qualities, are chiefly regarded for their food value. The term "dove" connotes affection, gentleness, purity, and peace. The term "pigeon" means nothing beyond mere huntableness, or, by implication, those very qualities of approachability, gullibility, and stupidity which play into the hunter's hand. Pigeons are game-birds, and doves are non-game-birds. The writer is willing to abide by this definition in so far as it affects this and the succeeding species of California birds.

BAND-TAILED PIGEON

The Band-tailed Pigeon of the West has been somewhat confused both in thought and report with his famous cousin, now extinct, the Migratory, or Passenger Pigeon (*Ectopistes migratorius*), of the East. The two species had little in common beyond the senseless confusion of identity. While formerly much more abundant than it is now, our western bird

never existed in numbers to justify comparison with the invading hordes of *migratorius*. It is much less gregarious in habit; and, in particular, it does not colonize closely at nesting time. It was this last-named trait, and not some mysterious epidemic or disaster at sea, which, coupled with the attendant persecutions of market hunters, in all probability proved the undoing of the eastern marvel.

In only one instance of recent report has the Band-tailed Pigeon appeared in such numbers as to recall the tales of former days—and other climes. In the fall and winter of 1911-12, lured by an unusual crop of acorns, and impelled, no doubt, by corresponding "crop" failures elsewhere, immense numbers of Band-tailed Pigeons appeared in the interior valleys of Santa Barbara County, centering about the town of Los Olivos. It is probable that practically the entire summer population of California north of the Tehachipe, Oregon, Washington, and British Columbia concentrated at this point. It is not surprising, therefore, that "millions" of birds should have been reported in this section, although half a million would probably be much nearer the truth.

What followed on this occasion was a humiliating example of what human cupidity, callousness, and ignorance, when unrestrained, will accomplish toward the destruction of birds. Reports of the birds' abundance spread rapidly. The "Wild Pigeon" of the East had unexpectedly turned up in the West. Hunters from the outside flocked to the scene. Every gun was put into commission. By automobiles and train loads they came. The country was aroar with gunfire. The ammunition business jumped in a dozen towns. Enterprising dealers organized shipments to the San Francisco and other markets. W. Lee Chambers, writing for "The Condor,"[1] reports a Sunday excursion of hunters from San Luis Obispo which brought home 1560 birds. Another man, hunting for the San Francisco market, killed 280 pigeons under one oak in one day. The stupid birds, knowing nothing of their offense, flew miserably from one part of the valley to another, but would not, or could not, forsake their food. How great the destruction of that winter really was is matter of merest conjecture, but it must have been a very sensible proportion, possibly more than half the entire species.

I passed through this section of the country on the first of the following April and saw only 28 pigeons, but the sides of the road in many places were so covered with paper waste from cartridge boxes that I was reminded of a street in Chinatown on the morning after New Year's. Fortunately, this destruction and the agitation which ensued prompted the Government to declare a five-year closed season on Band-tailed Pigeons.

Farmers urged in extenuation of this slaughter that the Pigeons

[1] Vol. XIV., p. 108; Vol. XV., pp. 41, 42.

Taken in Ventura County *Photo by the Author*

BAND-TAILED PIGEONS AT REST

do damage to their grain fields. It is true, according to investigations carried out by Mr. Stanley G. Jewett in Tillamook County, Oregon,[1]

[1] "The Oregon Sportsman," Vol. III., No. 8, pp. 177, 178.

that the Pigeons visit newly planted oat-fields and gather grains scattered upon the surface. Such grain, as Mr. Jewett points out, would not mature anyway; and since the birds neither scratch nor delve, the damage done is immaterial. It is another case of hunting excuses.

In feeding upon the ground the birds alight in rather close order and proceed in one direction. Those in the rear, soon finding the ground entirely bare of food, rise, pass over their fellows, and settle in the line of advance. In this way there is a continuous movement of birds passing forward, and the general effect is of a feathered roller advancing slowly over a field. Acorns are the chief object of pursuit, and of these, by preference, such as have fallen upon the ground. These acorns are bolted whole, and the sizes which the greedy gullets can accommodate are mildly astonishing. After a good fill-up, the birds retire *en masse* to some exposed tree-top where they can mount guard against surprise attacks as well as ruminate and fatten.

Taken in San Diego County *Photo by Clinton G. Abbott*

A BAND-TAILED SQUAB

As the season advances, the pigeons lay various forms of berries under tribute. Elderberries are favorites everywhere. In a little valley near Eureka I saw pigeons stripping the berries off an elderberry bush which grew hard against the cook-house of a lumber camp.

In the northwestern counties the fruit of cascara sagrada (*Rhamnus purshiana*) is eaten with great avidity; and to a lesser extent the coffeeberry (*Rhamnus californica*) in the coastal ranges. Huckleberries of every sort are staples of Columbine diet, with salal berries, salmon berries, and madrones in due course. Manzanita berries, whether green or ripe, are eaten at any season. Under stress the birds will also consume the less nutritious Christmas berry (*Heteromeles arbutifolia*). In fact no edible berry or fruit is overlooked. In early spring, when other sustenance fails, these pigeons will resort to "browse," selecting oftenest the

leaf-buds of oak or manzanita. Indeed, Evermann records an instance[1] of a bird, near Ventura, which had stuffed its crop with the young balls (crowded flower-clusters, or "buttons") of a sycamore.

In the presumed absence of enemies, these Pigeons indulge in loud cooing, not unlike that of domestic varieties. In the presence of danger, however, they know how to sit very quietly, and they are so successful in escaping attention, especially in the deeper evergreen forests, that often the first inkling one has of their presence is given by the loud flapping wings of hurried departure. To stumble unexpectedly upon a berry-patch crowded with Pigeons, say to the number of several hundred, is a memorable experience. The alarm may not be general—the birds are loth to quit their feast—but they will rise by tens and twenties, by volleys and platoons, until the beholding hunter thinks he has discovered Pigeon Paradise.

But the flocking of Band-tailed Pigeons must not be exaggerated. These large concourses are rare. For the most part the birds move about in smaller bevies. Even in country where they are well distributed and common, scattering flocks, of less than a hundred each, are the rule. Flight is direct and vigorous, but it has the appearance of being labored—the bird weighs a good twelve ounces—and ever and again, overhead, there is the tell-tale clap of wings too vigorously smitten.

Whatever lack of caution these birds may display when they feel the support of a hundred fellows, is more than compensated at nesting time. The birds at this season scatter widely and become imbued with a preternatural cunning. Approach and departure from the nest, a mere wisp of crisscross twigs in oak or fir tree, is accomplished with the greatest circumspection. When flushed, the bird makes off and disappears with almost magical directness, and she (or he) is very careful not to put in an appearance again to establish identity.

Once the writer put in several days on the west slopes of the San Jacinto range, at an altitude of some 6000 feet, hunting for pigeons' nests. The cover was mingled black oak, golden oak, yellow pine, and white fir, with clinging stands of chaparral, and much open ground. Upon our first appearance on an open shoulder (where camp was later established), we glimpsed a Band-tailed Pigeon as it left the middle depths of a certain fir tree. A hundred feet or so away, it did not see us at first, for we became motionless; but it scented trouble, and instead of following its first impulse to return, took the top of a neighboring tree instead. Here it began cooing softly, then, catching sight of us, it fled toward us, upon the instant, with accusing directness. When not twenty feet away it gave a sharp *scrat* note of comprehension and alarm, the like of which I never heard before, swerved sharply, and took another tree top at some

[1] Barton W. Evermann, Auk, Vol. 3, 1886, p. 92.

remove. Here it immediately resumed its cooing, and here it was joined presently by two strangers, young perhaps, welling up from some unnoticed depth of the fir thicket. It was all so mysterious, so stealthy—and so efficient!

On a later occasion I surprised this same bird posted, sentinel fashion, in a pine tree. Upon discovery he flew with exaggerated effort, striking his wings together noisily over his back, and uttered a harsh guttural *raaack raack*, several times repeated,—and intended, no doubt, as a reproof to prowling bird-men. Careful searching of five tall fir trees, limb by limb, disclosed only a last year's (or last spring's) nest, twelve feet up and fifteen feet out upon a horizontal fir limb.

Other observers, of course, have been more lucky, and from their reports we know pretty well that Band-tailed Pigeons nest almost anywhere in Transition zones in the southern or coastal ranges, and also, possibly in the Sierra Nevada. There are distinct evidences of a colonizing tendency, but nests are never found in close proximity, not nearer, say, than once in three or four acres. On the other hand, nests are sometimes miles removed from their fellows. The season is very irregular: March 6, 1877 (Stephens), and Aug. 11, 1913 (Wright), are extreme California dates; and it is probable that the birds nest only once each season. Only one egg is deposited—(there is one instance reported, by Clarence S. Sharp,[1] of two); and so far as known there are no authentic instances in California of the bird's nesting upon the ground, as it undoubtedly does upon occasion in the northern states. Incubation lasts, according to Major Bendire, from fifteen to eighteen days; and the care of the young must occupy a full month more. The Band-tailed Pigeon is, therefore, the least prolific of all recognized "game" birds; and if it is to be preserved at all, it must be taxed with extreme moderation.

No. 226

Western Mourning Dove

A. O. U. No. 316a. **Zenaidura macroura marginella** (Woodhouse).

Synonyms.—Wild Dove. Turtle Dove. Carolina Dove.

Description.—*Adult male:* General color of upperparts olive-brown (Saccardo's umber); margins of wing, broadly exposed portions of quills (the primaries changing to fuscous distally), hind-crown, the cervix (lightly or not at all), bluish gray (light to clear Payne's gray); the lower scapulars and tertials broadly but sparingly black-spotted; tail finely graduated, the central feathers like back, the succes-

[1] "The Band-tailed Pigeon in San Diego County," Condor, Vol. V., 1903, p. 16.

sively shorter feathers blue-gray basally, changing from light bluish ash to white on tips, and crossed by black subterminal band; a patch of bright purplish red iridescent feathers on upper side of neck; the remainder of head shading light drab, paling (nearly white) on throat; a dab of black below ear; breast deep vinaceous, shading through belly to cream-buff of crissum; wing-linings, axillars, and sides light blue-gray (light Payne's gray). Bill black; bare space about eye light blue; feet lake red. *Adult female:* Similar to male, but bluish of hindhead and neck restricted or wanting; less iridescence; breast like back or merely tinged with vinaceous. *Immature:* Like adult female, but duller, without iridescence; black spot below ear wanting; feathers of foreparts above and below tipped with whitish. Length about 304.8 (12.00); wing 146.1-152.4 (5.75-6.00); tail 146.1-165.1 (5.75-6.50); bill 14.5 (.57).

Recognition Marks.—Robin size; sober, blended colors; rapid, graceful flight, accompanied by whistling sound of wings; mournful, "cooing" notes.

Nesting.— *Nest:* A frail platform of twigs or straw, placed at moderate height in tree, bush, cholla cactus, etc., or on stump, fence or low ledge; sometimes on ground in open field. *Eggs:* 2 (3 and 4 of record); elliptical oval, or abruptly pointed; white. Av. size 28 x 21 (1.10 x .83); index 75. *Season:* March–July; August–December of record; two or more broods.

Range of *Zenaidura macroura.*—The West Indies and North America from southern Canada to Panama.

Range of *Z. m. marginella.*—Western North America from the eastern edge of the Great Plains to the Pacific (except possibly the northwest coastal strip), north to British Columbia, Saskatchewan, and rarely Mackenzie, south to southern Mexico and, in migrations, to Panama.

Distribution in California.—Abundant summer resident and migrant throughout the State in Sonoran zones, and in lesser numbers through Transition zone. Also a casual visitor in Canadian zone. Winters commonly in the valleys of the San Diegan district, irregularly and locally north through the central valleys. Common on all the islands.

Authorities.—Peale (*Ectopistes carolinensis*), U. S. Expl. Exped., Birds, 1848, p. 189 (San Francisco); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 35 (San Joaquin Valley; habits, etc.); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 53 (s. Calif. ids.); *Grinnell, Bryant and Storer*, Game Birds Calif., 1918, p. 588, figs. (general account).

WHEEEW hewh heeeeoooo hewh heeeeoooo. The tender, impassioned notes of the Mourning Dove are not only the most familiar, the most characteristic and commonplace, but the most lyric and soulful as well, the most romantically moving of any in the American chorus. Though the love-lorn swain blows but a single note, the sound sets a myriad chords to vibrating,—hope, memory, and desire, no less than sadness. Gentle melancholy, the sickness of springtime, is really the budding of desire, the yearning of the Live One for his complement, the Also Living. Love-sick the bird unquestionably is, but who are we that we should affect to pity or to scorn? His is a voice of dignity and allurement, a voice of gentle compulsion which bids us also sigh and hope and aspire. Oh, there be those who call it doleful, and who profess a dislike for the

solemn tenderness of the Mourning Dove, but they are such as have never loved, or who, having loved, have seen life's wine turned into vinegar. They do not wish to remember. For forgetfulness and indifference are alike impossible for those who listen. *Wheeew hewh heeeeoooo hewh heeeeoooo.* Voice of the heart! the heart expressive, yet forever unexpressed; achieving, yet forever uncontent; aspiring and forever aiming higher, higher, higher! Voice of the spirit art thou, O gentle bird! *Wheeew hewh heeeeoooo hewh heeeeoooo.*

Taken in San Luis Obispo County *Photo by the Au*

ON NEST IN MONTEREY CYPRESS

These familiar, long drawn "mourning" notes are uttered only by the male, and for all their tenderness they have a penetrating quality, which makes them one of the most insistent elements in the chorus of springtime. Besides these the birds make no other sound, unless we count a musical wing-note which is made when suddenly taking flight, and which is so distinct that one can never be quite satisfied that it is not a vocal outcry. The same note, moderated, is heard in mid-flight, and also with renewed force when the birds are checking their flight or alighting; and it is so exactly timed with the wing movement that we must conclude its external origin.

The Wild Doves are model lovers and are chiefly known for their domesticity. During the mating season they sometimes vary the monotony of the ordinary whistling flight by sailing about in graceful curves on stiffened, noiseless wings. There is always an abundance of billing and cooing; and love-making, it is to be feared, often interferes somewhat with the practical side of housekeeping. At least the young wife is not a good house-builder, although she may be, and doubtless is, a kind mother.

A Dove's nest is the symbol of frailty. A few careless sticks or straws are laid together in a platform, and lodged at a moderate height in the

crotch or upon the horizontal limb of a tree or bush. Fence-corners, the tops of stumps, brush-piles, and overgrown stone-heaps are favorite places, and occasionally eggs are laid upon the ground with little pretense of a nest, or none. This is necessarily the case in sections given over to grain-growing; and in such regions, also, the danger from ground-haunting, predatory animals is greatly reduced. Sometimes the dove builds in bush-clumps entirely surrounded by water, the purpose being, manifestly, to escape prowlers. In the deserts the dove has recourse to the cholla cactus, although, truth to tell, she is not an adept at this sort of thing, and chooses for her site the lower, weathered portions of the plant, rather than the "stickery" top. Again, old Thrashers' nests or those of Brewer Blackbirds, Magpies, and Jays afford acceptable foundations. When one of these is used, the tenant merely adds a few clean straws or twigs by way of lining. Now and then, however, a quite substantial nest is constructed, and one which reflects credit upon the gentle builder. The student of caliology, indeed, finds more to wonder at in the varying artistry of doves' nests than in the case of any other group of birds.

ken in Washington
oto by F. S. Merrill

NEST AND EGGS OF WESTERN MOURNING DOVE

Mourning Doves, like the domesticated varieties of species distantly related, are very prolific. Eggs may be looked for at any time from March to September. Indeed, a competent observer, Dr. Howard Jones, living as far north as south-central Ohio, declares that he has seen Doves sitting on fresh eggs every month of the year except December and January. According to the same writer, the female dove sometimes lays again before the young have flown; in which case the latter must assist, perforce, in the duties of incubation.

An instance came to notice here near Santa Barbara which would go to show that oviposition, in case of the Mourning Dove, may be, for the annual period of activity, a regularly recurring monthly function independent of special stimulus. A nest found on the 31st day of July (1915)

contained two eggs, apparently fresh, and those were left undisturbed. Nearly a month later, viz., on August 25th, a Dove was flushed from the same nest, which was found to contain four eggs, all sterile. Apparently, an unmated bird, or one which had lost its mate early, had functioned according to nature's predetermined schedule.

Young Mourning Doves are delicate creatures, in spite of the fact that they get as fat as oysters before they leave the nest. They are fed by regurgitation and their food is mingled with a whitish fluid from the adult stomach — "pigeons' milk."

"At night," according to Langille, "the old one sits crosswise on them even when they are quite large, the nest and birds together thus making quite a grotesque pile."

When frightened from the nest the female drops instantly to the ground, and goes off into a series of elaborate convulsions in an effort to distract attention from her treasures. From the fact that this trait of decoying is oftenest exhibited by ground-nesting species, it is fair to guess that the Mourning Dove was originally and exclusively, as now occasionally, a ground-nester. The male, also, is pretty sure to be close at hand, if, indeed, he was not taking his turn upon the eggs; and when the young are ready to leave the nest he takes charge of them, while his mate is incubating another pair.

Taken in San Bernardino County *Photo by W. M. Pierce*

"A DOVE'S NEST IS THE SYMBOL OF FRAILTY"

In late summer and early autumn the Doves begin to gather into groups, or small flocks, although they cannot, like the Pigeons, be characterized as "highly gregarious." Food, taken chiefly from the ground, consists, in part, of fallen grains, but always largely, and often exclusively, of weed seeds. The industry and capacity of these birds as weed-seed destroyers is enormous. Beal reports one stomach which contained 6400 seeds of the troublesome foxtail (*Chætochloa*), another 7500 seeds of the yellow wood sorrel, and another 9200 seeds of mixed varieties, but mostly noxious weeds. These were single meals, and the bird requires several such in the day. Suppose each bird consumed three cubic inches, a very modest allowance, of weed-seed *per diem*. That would make half a bushel of weed-seed per annum, enough to seed ten acres of land with any one of a dozen varieties of plant pests. Judged by this standard, and it is a fair one, the Mourning Dove bulks large as an economic factor in the development of California. And for pay, this zealous "hired man" asks only exemption, for the trifling amount of standing grain (chiefly wheat) occasionally taken is agreed by experts to be a practically negligible factor, not over two per cent of the bird's total fare.

aken in the Ojai *Photo by Dickey*

MOURNFUL SQUABS

The question whether the Mourning Dove is or is not a "game-bird" is one which I cannot bring myself to discuss dispassionately. Our laws, reluctantly perhaps, recognize it as such, and tens of thousands of them are killed annually, especially in the valleys of the San Joaquin and Sacramento, where it abounds. Such slaughter is abhorrent to all bird-lovers. It is not alone because of the bird's approved usefulness. The men who do the killing are often the very ones who would profit most by

non-killing. It is for the farmer to decide whether the "sport" of killing doves is worth more to him than his crops, whether the meat secured is worth, say, a dollar an ounce. Hunters urge, fairly enough, that the bird is abundant; that it is possessed of considerable recuperative power, i. e., is prolific enough to stand up under gun-fire; that it easily develops caution and the attitude of fear; that its rapidity of flight constitutes it an ideal target; that its flesh is sapid; and that its body yields a sensible return of food value. We shall ignore, too, the fact that these birds nest regularly throughout the State in July, also to a considerable extent in August, and not infrequently in September; so that the offspring of slaughtered parents must be left to perish. The business of sport cannot wait forever upon maternity.

But the real question is, how can you endure to quench that voice,—that haunting, wistful, friendly voice? How could you wish to rebuke that erstwhile lover, the model of his race? How can you offend such confidence? or how abide the accusative eyes so wont to be tender? Or how shall gentleness—for the Mourning Dove is the most perfect exemplar of that sovereign grace—how shall gentleness survive on earth at all, if we meet it so with shot and shell? Is it a pleasure to be shunned by gentle creatures? to move always along a path of terror? to feel the woodland grow silent before us? to live, in short, in an empty world?

No. 227

Western White-winged Dove

A. O. U. No. 319. **Melopelia asiatica mearnsi** Ridgway.

Synonyms.—Singing Dove. *Paloma cantador.*

Description.—*Adult male:* General color scheme somewhat as in preceding species; upperparts chiefly olive-brown (Saccardo's umber), changing to bluish gray on rump, top of head and neck washed with light vinaceous purple; wing with a broad white band from bend to tips of outer secondaries, the transitional area (between white and olive-brown) bluish gray; extreme edge of wing and quills blackish, the outer primaries very narrowly bordered and the outer secondaries more broadly tipped with white; a heavy dab of black below and behind ear, sometimes iridescent and flanked by feathers on sides of neck which exhibit first bright purplish red and then greenish iridescence; breast much like back, shading to whitish of chin and upper throat; remaining underparts, including lining of wings and axillars, bluish gray (light Payne's gray), paling on middle of belly and crissum; tail rounded from above, blue-gray basally, white terminally, separated by black band; the central covering pair of feathers like back, but faintly echoing general scheme by darker and lighter. Bill black. *Adult female:* Similar to male, but duller; iridescence on side of neck reduced.

Immature: Without iridescence or black spot under ear; purplish vinaceous wash of head, etc., reduced. Length of adult about 300 (11.81); wing 160.3 (6.31); tail 93 (3.66); bill 22.6 (.89); tarsus 25.4 (1.00).

Recognition Marks.—Robin size,—a little larger and stouter than Mourning Dove; tail rounded, not sharply graduated; white wing-patch distinctive.

Nesting.—*Nest:* A rude but sometimes bulky platform of interlaced twigs, weed-stalks, or grasses; placed at moderate heights in bush or tree. *Eggs:* 2; variable in shape, but elliptical oval or elliptical ovate; creamy white, ivory-yellow, or pale cartridge buff. Av. size 30.5 x 23 (1.20 x .906); index 75. One specimen in the M. C. O. coll. measures: 33 x 20.57 (1.30 x .81); index 62.3; another, 25.4 x 20.57 (1.00 x .81), i. e., index 81; still another, a "freak," 27.7 x 16.76 (1.09 x .66); index 60.5. *Season:* April–July; one brood.

Range of *Melopelia asiatica.*—Southern border of the United States south to Costa Rica; Bahamas and Greater Antilles.

Range of *M. a. mearnsi.*—Southwestern New Mexico, southern Arizona, southeastern California, southern Lower California, and the Mexican plateau, south to Mexico and Puebla. Accidental in Colorado and western Washington (2 records).

Occurrence in California.—Summer resident locally in the valley of the Colorado River. A straggler taken near Escondido in San Diego County (Sept. 25, 1911, Dixon).

Authorities.—**Morcom** (*Melopelia leucoptera*), Bull. Ridgway Orn. Club, no. 2, 1887, p. 40 (Colo. Valley); *J. Dixon*, Condor, vol. xiv., 1912, 196 (Escondido); *Grinnell*, Univ. Calif. Pub. Zool., vol. xii., 1914, p. 123 (Colo. Valley); *Wetmore*, Condor, vol. xxii., 1920, p. 140 (habits; Ariz.).

WE HAVE no record, apparently, of ornithological conditions obtaining in Coachella Valley, which is the heart of the Colorado Desert, prior to its inundation in 1907 by "New" River. But we may be fairly certain that the mesquite forest, whose "bones" protrude even yet from the whitening shallows of Salton Sea, once resounded to the sonorous calls of the White-winged Dove. For where the mesquite tree stands, there dwells *Paloma cantador*, the "Sonora Pigeon," beloved of Mexicans, and most familiar of south Arizonian birds. Palomas give not only color and movement to the landscape in Maytime, but their combined vocal offerings form the great diapason of all morning choruses from the Gila and the lower Colorado south to Brownsville and through the land of the Aztecs.

Oo uh' uh oooo, says the amorous dove; and hearing him for the first time in the distance, you might take him for a young cockerel. In uttering this note the bird throws his head well forward and closes his eyes ecstatically (thereby disclosing a livid blue eyelid) but he does not open his beak. In defiance of all the masters, he sings through his nose. The effect is charming, it must be admitted, but one cannot help wondering what the sound would be if only the bird would "sing out." Chanticleer's effort would surely pale beside it. As the bird becomes more earnest—gets down to business—the cadence changes. *Hoo'luh oo' uh hoo'luhoo'uh*,

in even but impassioned tones, is probably intended for a single pair of ears, or is an utterance *en famille*, after the eternal question has been settled. Anyhow, with a score of courtships proceeding abreast, the dove-thronged forest of May-time vibrates to a volume of sound not otherwise attained in the West; and the fortunate visitor is not likely soon to forget the multitudinous pipe-organing of *Melopelia*.

The White-winged Dove is a tardy migrant, and its numerous arrival in late April is quite conspicuous. Flight is conducted at low levels, and occupancy is effected by a progressive invasion rather than by a sudden coup. The birds troop across the roads in endless desultory columns, or else rise hastily from a wayside snack; or, most likely of all, gather upon exposed branches to mark with curious wooden detachment the passing of the intruder. When surprised, the White-wing makes off with a noisy flapping, like that of a Band-tailed Pigeon; and the bird is so proud of the noise it can make with its wings, that it not infrequently stages for the benefit of the ladies a sort of flap-doodle song-flight. There is no song forthcoming, but the performer applauds his own resolution by a rhythmical percussion of the wings.

Taken in Arizona *Photo by the Author*

A WAYSIDE REFUGE
WHITE-WINGED DOVES IN TREE-TOPS

Seated on the nesting platform, especially with the tail turned away, the White-winged Dove scarcely differs in appearance from its cousin, the Mourning Dove; but when the bird is flushed, a large white crescent on each wing flashes into view, and one notes the broad terminal band of white on a tail spread fan-wise. The stolid groups which gather in trees remind one, rather, of Pigeons (Band-tails) than of our more familiar and more solitary Dove.

The nesting of the White-winged Dove is rudely, but not exclusively, colonistic. A bit of mesquite or a stretch of willow may yield a dozen nests, while another half mile stretch, fully as inviting, is tenantless. The slovenly architect is not more careful than other dove-breeds, and so we have all varieties of nests, from mere horizontal branches and crossed sticks to elaborate platforms of grasses or weed-stalks. The eggs, two in number, are never "white" but always pale pinkish buff, or, more exactly, "pale cartridge buff" in tint. Only one brood, apparently, is raised in a season, at least in the North. From the number of idlers, whole flocks of them, seen at nesting time, one suspects that an earlier brood may have been reared somewhere in Sonora. At any rate, immature birds, birds of the year, as we suppose, mingle with their elders in the northern flight.

No. 228

Mexican Ground Dove

A. O. U. No. 320a. **Chæmepelia passerina pallescens** Baird.

Description.—*Adult male:* Prevailing color brownish vinaceous, changing to olive-brown on upperparts, centrally (back, scapulars, inner tertials, rump, and upper tail-coverts), lightening on sides of head and forehead, whitening on throat, lower belly, and crissum; crown and neck bluish gray; feathers of breast with dusky centers; wing-coverts heavily but sparingly spotted with purplish black or blackish violet; alula, primary coverts, and quills blackish on exposed portions; the axillars, lining of wings, and concealed webs of quills, rich orange-brown (exactly auburn); tail slightly rounded, bluish dusky basally, blackening terminally, the outermost pair of feathers tipped with white. Bill yellow with darker tip; feet yellow. *Adult female:* Somewhat similar to male, but much paler and duller, scarcely vinaceous, olive-gray or pale brownish instead; no blue-gray anywhere; the spotting of wings *bright rusty* or barely glossed with purplish. Length 158.75-177.8 (6.25-7.00); av. of 7 adults: wing 84.2 (3.315); tail 56 (2.20); bill 11.1 (.44); tarsus 12.4 (.49).

Recognition Marks.—Sparrow size; vinaceous coloring of males; terrestrial habits; the only tiny dove within our limits.

Nesting.—*Nest:* A shallow platform of twigs and grasses; placed at moderate height in bush or tree. *Eggs:* 2; elliptical oval, white. Av. size 21.5 x 16.5 (.847 x .65); index 76.7. *Season:* March–July; also throughout the year in the Imperial Valley (Fortiner).

Range of *Chæmepelia passerina.*—Southern United States and south through the West Indies and Mexico to Brazil and Peru.

Range of *C. p. pallescens.*—Lower Sonoran and Tropical zones, from southeastern California and Lower California east to south-central Texas and south to Costa Rica.

Occurrence in California.—Of common but irregular occurrence in the valley of the Colorado; probably breeds. Casual elsewhere at widely separated stations,

especially in the coastal counties, San Diego, Santa Barbara, Monterey, San Mateo, and San Francisco.

Authorities.—Coues (*Chamaepelia passerina*), Proc. Acad. Nat. Sci. Phila., 1866, p. 93 (Ft. Yuma); *Littlejohn*, Bull. Cooper Orn. Club, vol. i., 1899, p. 73 (Pescadero); *Stephens*, Condor, vol. v., 1903, p. 77 (Ehrenberg, Colo. R.); *Todd*, Annals Carnegie Mus., vol. viii., 1913, p. 534 (monogr.); *Fortiner*, Condor, vol. xxii., 1920, p. 154 (Imperial Valley, breeding; habits); *ibid.*, vol. xxiii., 1921, p. 168 (nesting throughout the year).

WHEN a tiny portion of the landscape, hitherto unnoticed, detaches itself from the ground, and charges with a curious little waddling flight into the nearest thicket, we naturally surmise a new sparrow, and we are not a little amazed to find instead a duodecimo dove; and when the mind has reluctantly accepted this quarter-sized pocket-edition of a dove as a fact, expectation is further defeated by finding not a kittenish approximation of dove-like qualities, a cunning, cuddlesome miniature "too cute for anything," but a prosaic dead-in-earnest grubber of the fields, a self-centered, self-sufficient little dwarf who asks only to be let alone, and who sternly repels all overtures, whether of admiration or condescension. For one I resent this elfin self-sufficiency. What business has an undersized, grown-up squab to maintain such a moral aloofness, to treat us lords of creation as though we were non-existent, or else, when we force the issue of attention, to move off in disdain as though the neighborhood were polluted? In my barefoot days I have seen a bevy of little girls act thus. Perhaps it is the defense of all dwarfs.

The disaffection began, I think, at the mesquite camp where I found a "Mex" Ground Dove's nest five feet up in a bush and not a hundred feet away. I immediately planned portraiture—surely an intended compliment. But as often as any one of us approached within forty feet of that nest the "techy" occupant faced about and sped away. We might sing, we might shout, we might dance if we liked, we might break up lengths of firewood in explosive succession—that was our business; but look at *her* sacred person—never! Finally I contrived a tunnel through the foliage, that I might direct the impartial glass eye upon her and snap her unaware. The portrait of Her Huffiness which, highly magnified, adorns the next page, is the record of my loftiest success.

And yet these birds are among the most familiar visitors about rancherias and clearings. They consume weed-seed and fallen grain wherever found and even mingle with the chickens at morning mess. Singly or in twos or by dozens they seem to show a special fondness for the humble quarters of the Mexican laborers, and it may be they only cherish a special resentfulness against the white race.

Business-like always, the Ground Dove is not less diligent in court-

Taken in Arizona *Photo by the Author*

HER HUFFINESS, THE MEXICAN GROUND DOVE

ship. The call note, *ōō wōō′ uk, ōōō wōō′ uk,* sounds a little hard and unromantic in comparison with that of the larger doves. The sound is very penetrating, but it is so low-pitched that some people fail to observe it. The singer is discreet, and the sound usually ceases upon the appearance of the ever-despicable human. Yet at close quarters with his lady love, the work-aday swain knows how to be tender. At such times he trails after his enamorata with trembling wings and cries *kōōl kōōul.* The daily visit to the drinking pool is the recognized occasion for amours. Then discipline relaxes and stern matrons will now and then accept blandishments at which cold reason shudders. But, after all, drinking's the thing, and this, again, is business. The dovelet seeks a shallow edge of mud and thrusts a beak in boldly. Not by the indolent dip and trickle of Chat or Thrasher does she satisfy thirst. No; with beak fully submerged, she drinks in rapid, gainful gulps. Heads up, a significant exchange of glances, and off they whirr with that directness which marks this bird an infallible champion of efficiency—and—tediousness. *Dura et inexorabilis—tu, O Nana!* Also a disappointment.

No. 229

Red Phalarope

A. O. U. No. 222. **Phalaropus fulicarius** (Linnæus).

Synonyms.—Gray Phalarope (in winter). Whale-bird. Coot-footed Tringa. Bank Bird (eastern). Sea Goose (eastern).

Description.—*Adult female in summer:* Entire underparts, except lining of wing, purplish chestnut (Rood's brown) with a faint glaucous bloom; a few touches of white ventrally on parted tips of feathers, even in highest plumage; region about base of bill, forehead, and crown blackish plumbeous; sides of head (nearly meeting on nape), axillars, and lining of wings, greater wing-coverts, inner edges of inner tertials, and sides of rump, white; hind-neck, back, scapulars, and upper tail-coverts (centrally) black with buffy and ochraceous edgings, mostly in lengthwise pattern; lesser and middle wing-coverts and rump plumbeous dusky; wing-quills fuscous with white shafts, the inner primaries white-edged basally, and the secondaries extensively white at base; upper tail-coverts black with ochraceous tips centrally, plain cinnamon laterally. *Adult male in breeding plumage:* Similar, but smaller and duller; ventral feathers more extensively white-tipped; black of face largely replaced by ochraceous, and that of crown heavily streaked with ochraceous; white of sides of head persistent over eye only. Bill yellow with dusky tip; feet yellowish dusky. *Adults in winter:* Quite different: Upperparts ashy (deep gull gray) nearly uniform; wing darker ash or blackish, but with white bar as before; head and neck all around white, enclosing a dusky area through and behind each eye, and another on the hindhead; underparts entirely white or ashy—washed on sides only. A transition plumage often observed in the return migrations in August shows mingled black and ashy above and white and chestnut below. *Immature:* Above dull black with ochraceous edgings; wing-coverts, rump, and upper tail-coverts plumbeous,—the first bordered by buffy and the last by ochraceous; remainder of head and neck and lower parts white, tinged with brownish buff on the throat and chest (Ridgway). Length of adult female (av. of 10 skins): 226.6 (8.92); wing 133.7 (5.26); bill 22.7 (.89); tarsus 22.8 (.90). Male smaller.

Recognition Marks.—Towhee size; chestnut coloration of breeding plumage distinctive. In the gray and white autumnal plumage requires careful discrimination from the other Phalaropes. From *Lobipes lobatus* it differs in being much larger, much lighter (gull gray instead of black) above, dusky areas of head much reduced, bill stouter and especially broader. From *Steganopus tricolor* it differs in being smaller, stockier, purer white on breast, more extensively white on head, and especially in having a shorter, stouter bill.

Nesting.—Does not breed in California. *Nest:* A slight hollow in the ground lined with bits of moss and grasses. *Eggs:* 4; deep to dark olive-buff, heavily spotted and blotched with brownish black (dark sepia). Av. size 30.5 x 21.6 (1.20 x .85). *Season:* June; one brood.

General Range.—Northern and Southern Hemispheres. Breeds in Arctic and sub-Arctic latitudes; in North America from the Yukon mouth and central Keewatin north to northern Ellesmere Land. Migrates along both coasts of the United States (casually in the interior) and winters on the oceans south at least to Juan Fernandez and Falkland Islands.

Distribution in California.—Abundant along the coast and off shore during migrations. Of casual occurrence interiorly. Winters sparingly and irregularly off shore from Monterey southward.

Migrations.—*Spring:* Enters State from south in March or early April; attains maximum May 25 to June 3. *Fall:* Stragglers return in late July and August; species becomes common off shore in September; most abundant along shore in November; clears for South by December 5th.

Authorities.—**Gambel** (*Phalaropus fulicarius*), Jour. Acad. Nat. Sci. Phila., ser. 2, 1, 1849, p. 224 (Monterey); *Grinnell*, Pac. Coast Avifauna, no. 1, 1900, p. 20 (Cape Prince of Wales, Alaska); *Beck*, Proc. Calif. Acad. Sci., ser. 4, vol. iii., 1910, p. 70 (Monterey); *Cooke*, U. S. Dept Agric., Biol. Surv. Bull., no. 35, 1910, p. 14 (migr., distr.); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 33 (s. Calif., occurrence, migr. dates, etc.); *Grinnell, Bryant and Storer*, Game Birds Calif., 1918, p. 320.

"SEA GEESE" the Atlantic fishermen call them, and if you can conceive of geese no bigger than your fist, scattered broadcast by thousands over the bosom of the ocean, you will have a fair idea of the general appearance, as well as of the confidence which inspires these remarkable birds. Albeit classed as a "shore-bird," this hardiest species of the Phalaropes spends its entire life upon the water, save as it is driven by stress of weather to seek shelter in the lee of some island or headland, or as it is led ashore by the promptings of the reproductive instinct. Inasmuch as the prevailing winds along our western coast are from the northwest during the spring months, and especially during May, no more favorable opportunity exists for the study of Red Phalaropes during migration than that afforded by the Farallon Islands, some twenty-five miles off the Golden Gate. Here in late spring thousands of these birds ride at anchor in the lee of the main island, along with other thousands of the other northern species, *Lobipes lobatus*. Of these some few scores are driven ashore by hunger and seek their sustenance in brackish pools, or else battle with the breakers in the little "bight" of the rocky lee shore. The date is May 23, and the company under survey numbers a few brilliant red birds in high plumage among scores in unchanged gray, together with others exhibiting every intermediate gradation. When to this variety is added a similar diversity among the Northerns, which mingle indiscriminately with them, you have a motley company—no two birds alike. Ho! but these are agile surfmen! Never, save in the case of the Wandering Tattler and the American Dipper, have I seen such absolute disregard of danger and such instant adjustment to watery circumstance. Here are thirty of these Phalaropes "fine mixed," threading a narrow passage in the reefs where danger threatens in the minutest fraction of a second. Crash! comes a comber. Our little world is obliterated in foam. Sea-anemones and rock-oysters sputter and choke, and there is a fine fury of readjustment. But the Phalaropes rise automatically, clear the crest

of the crasher, and are down again, preening their feathers or snatching dainties with the utmost unconcern. Now a bird is left stranded on a reef, or now he is whisked and whirled a dozen feet away. All right, if he likes it; but if not, he is back again, automatically, at the old rendezvous.

Life goes on right merrily in spite of these shocking interruptions. Food-getting is the main business, and this is pursued with extraordinary ardor. The bird's tiny feet kick the water violently, and there is the tiniest compensatory bob for every stroke, so that their little bodies seem all a-tremble. There seems to be no difference of opinion between the two species, but there is time for a good deal of amatory play between the sexes of the Reds. It is always the bright-colored female who makes the advances, for the wanton Phalaropes have revised Nature's order, and the modest male either seeks escape by flight, or else defends himself with determined dabs. Here is the authentic lady for whom Shakespeare's "pilgrim" sighed:

Taken on the Farallon Ids. *Photo by the Author*

THE NEREIDS

PHALAROPES OF BOTH SPECIES, RED AND NORTHERN, COMPOSE THIS FLOCK

Taken near Santa Barbara *Photo by the Author*

A WAYSIDE WINK

"Oh would my lady had me thus at bay,
To kiss and clip me till I ran away."

The birds are perfectly aware of my presence, and they do not come *too* close, except as a wave breaks over the barrier and sweeps the whole company over toward me. In such case, several of the more timid fly, but most of them cast an eye upward in my direction and determine to take chances. When the birds climb up onto a rock, they totter absurdly and pitch forward helplessly, as if their bodies were surprisingly, as they undoubtedly are unexpectedly, heavy. Not infrequently they fall in this fashion, always pitching upon their faces.

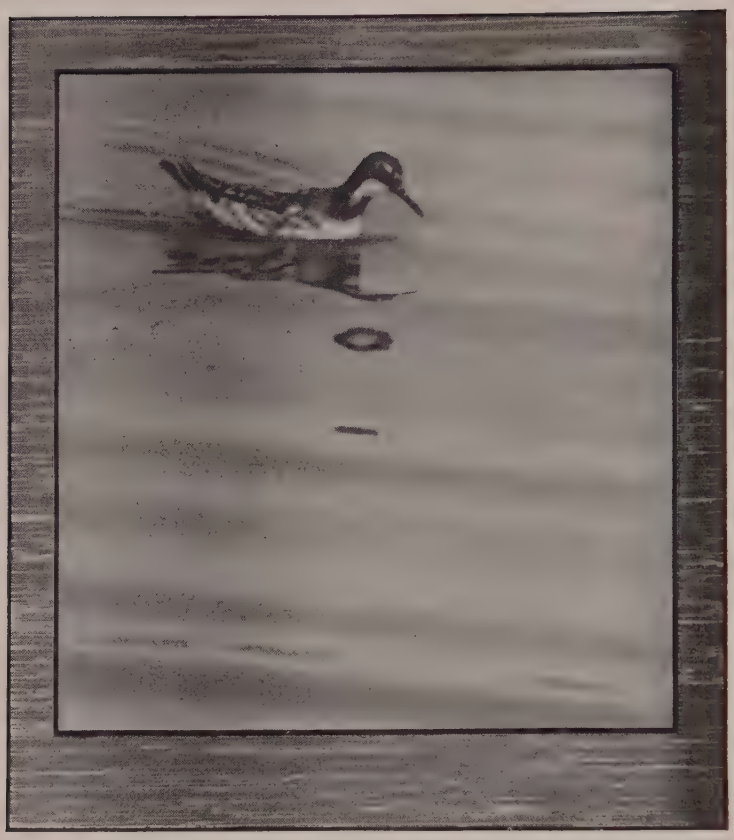
One modest gallant is just taking a bath. Mere sousing by surf is evidently inadequate for this important function, but it needs must have personal attention. The bather therefore tips first to one side and then the other, kicking into the air with the upper foot and scattering spray with the upper wing, while he dips the under one. He changes with incredible swiftness until, his ablutions completed, he rises three or four

feet into the air and shakes himself thoroughly. Interesting as were these evolutions at the tide line, they were soon to be surpassed by experience ashore—as witness the notebook: "Oh, bring me a new dictionary! At least a dozen fresh-minted words I require, caressives, diminutives, and felicitatives. Four Arctic emigrants ticketed for waters in and about the North Pole have adopted me for their god, and there is nothing they will not do for me save keep outside the focal length (about 2½ feet) of my camera. Three Red Phalaropes, all female I take it, although none of them in highest plumage, and one Northern, also a female, just under 'high,' are pasturing at my feet in a brackish pool some 20 feet long, 10 feet wide and 2 deep. The waters of the pool teem with a minute reddish crustacean (?) shaped like an ant, less than a 32nd of an inch in length and incredibly nimble. The insects progress by leaps, and are visible only at the moment of arrival. Yet these birds gobble them up one at a time with unerring accuracy and with a rapidity which is nothing short of marvelous. The Reds work habitually at the rate of five dabs per second, i. e., 300 a minute, while the Northern, with a longer beak and a much daintier motion, works only half as fast." If we pause to analyze the set of motions, or "reactions," involved in this performance, we find for *each* the following order: Kick, whirl, stop, select, strike (that is, secure prey), swallow. Allowing that

Taken in Santa Barbara *Photo by the Author*

FULL SAIL

THE SUBJECT IS A NORTHERN PHALAROPE, AND THE MOMENT IS THAT JUST AFTER ALIGHTING BEFORE THE "SAILS" HAVE BEEN HAULED IN



Taken in Merced County *Photo by the Author*

SPRING CLOTHES
NORTHERN PHALAROPE IN BREEDING PLUMAGE

the first three operations follow in automatic sequence as the result of one volition, we have at least four volitions for each cycle,—twenty per second — rather rapid thinking! "The birds are fast livers, and they void the cloaca at intervals of two or three minutes, roughly guessed. The excreta are chiefly vivid rose red with an attendant portion of pure white—the same in color, by the way, as that cast by the Murres on the east wall of Shubrick point.

"As I said, these birds will do anything for me. By stealthy approach and good behavior I have won their complete confidence, taking all the pictures wanted at focal length, the birds passing repeatedly within that distance as the camera is pointed diagonally down at them. After using up my plates I lay down by the water's edge, and the birds repeatedly came nearer to my face than my hands were. Also when I stretched my hand out slowly into the water, they came within a foot of it, and, once, within six inches. And yet they are perfectly cognizant of the birdman's presence, and give a little start or warning peep every time an unusual movement occurs, or the slightest sound escapes me."

We are told that these birds breed in immense numbers within the Arctic Circle, and that they are invariably found among those breeding farthest north. Their presence, also, is characteristic of open water anywhere in the Arctic Ocean; and it is hailed with delight by whalers as being a good indication of the near presence of some large cetacean, especially of

the Bow-head, or Right Whale (*Balæna mysticetus*), since the birds delight in the same sort of sea-forage as that upon which the whales subsist.

The nature of the Red Phalarope's winter habitat is much less clear. Instead, the bird has surrounded itself with quite an atmosphere of mystery. There are winter records from regions so diverse as our own Monterey, Santa Cruz Island, and San Diego, the west of Chile, San Juan Fernandez, and the Falkland Islands. On the whole, it would appear probable that the species winters upon the open ocean in some unknown tropic latitude, and that it appears on shore only when driven in by storms or when seeking landmarks for the migratory movement. The fall migrations along our coast are very leisurely. Stragglers, presumably those which fell short of the northern goal, begin to appear as early as late July and in August. The pace quickens throughout the autumn months, but the bulk of the species musters from the ocean and feels its way south along the kelp beds only in early November. Thus, we count the birds of regular occurrence at Santa Barbara upon the 7th or 8th of November. Most of the birds have cleared for the southern rendezvous by the tenth of December, but a few linger throughout the season, from Monterey southward.

The return movement of spring is less scattering. Beginning easily in April, it bulks largest during the last week in May and, save for unusual adversities of tempest, has cleared by the 7th of June.

Taken near Santa Barbara *Photo by the Author*

NORTHERN PHALAROPES AND WESTERN SANDPIPERS

No. 230

Northern Phalarope

A. O. U. No. 223. **Lobipes lobatus** (Linnæus).

Synonym.—Red-necked Phalarope.

Description.—*Adult female in summer:* Above and on sides of breast and sides (narrowly) slaty with a drab cast; blackish on back and scapulars, and edged here with light ochraceous; wings brownish black, the greater coverts broadly tipped with white, forming a transverse bar; sides of neck and lower throat rufous,—pure on sides, more or less mixed with slaty gray on throat; chin, upper throat, and remaining underparts entirely white. Bill black; feet yellow, lobate and semipalmate, most extensively between middle and outer toes. *Adult male:* Similar, slightly smaller and of duller coloration, save that the black of back is more decided and the ochraceous edgings of upperparts deeper and more extensive; scapulars, etc., narrowly tipped with white. *Adults in winter:* Without rufous; more extensively white; crown and auriculars (connecting below eye with a similar spot in front of eye) and median stripe of hind-neck dusky gray; the rest white; remaining upperparts blackish (centrally) and dusky or ashy gray, extensively edged and striped with cream-buff and white; wing-bar as before; sides of breast grayish-clouded. *Immature:* Similar to adult in winter, but more black above; breast usually tinged with buffy or brownish. Length 190.5 (7.50); wing 115.1 (4.53); tail 51.3 (2.02); bill 23.1 (.91); tarsus 19.6 (.77); middle toe and claw 20.3 (.80). Males average smaller.

Recognition Marks.—Towhee size; slaty gray, rufous, and white of head and neck in spring plumage; slender, black bill, less than one inch long, with scalloped feet, distinctive in any plumage.

Nesting.—Does not breed in California. *Nest:* A slight depression in the ground, lined with moss and grass. *Eggs:* 4; deep to dark olive-buff, heavily speckled, spotted, or blotched with brownish black (dark sepia). Av. size 29.2 x 20.8 (1.15 x .82).

General Range.—Northern and Southern Hemispheres. Breeds in Arctic latitudes south to the Aleutians, Hudson Bay, and northern Labrador. Winter home unknown, but presumably tropical seas. Occurs broadly over the entire continent during migrations but more commonly coastwise.

Distribution in California.—Of general occurrence during migrations; abundant coastwise or off shore. Small parties of non-breeders sometimes linger through the summer upon interior ponds.

Authorities.—**Cassin** (*Phalaropus hyperboreus*), in *Baird*, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 706 (San Francisco); *Loomis*, Auk, vol. xi., 1894, p. 27 (Monterey, migr.); *Grinnell*, Pac. Coast Avifauna, no. 1, 1900, p. 21 (Kowak R., Alaska; desc. nest and eggs, habits, etc.); *Fisher*, Condor, vol. iv., 1902, p. 8 (Mono Lake); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 16 (distr. and migr.).

NOTHING can exceed the exquisite grace of this delicate bird as it moves about, not at the water's edge, like other waders which it so closely resembles in appearance, but upon the surface of a pool or even on the bosom of the deep. As it swims, it nods with every stroke, turns at a thought to snatch some floating sea-morsel, or flits away with as

Taken in Santa Barbara *Photo by the Author*

ATTENTION!

NORTHERN PHALAROPE IN AUTUMNAL PLUMAGE

little provocation as that afforded the bursting bubble of foam, its late brother. We who dwell by the sea wait eagerly for the reappearance of our confiding little voyageurs, in April or early May, and though our files are already bursting full of "negatives," we shall not cease to pursue this dainty apparition as often as he condescends to visit our brackish pools and shallows.

Truth to tell, the enthusiasm of photographic pursuit often leads the camerist into sorry places. Accustomed though it be to gleaning a living from the surface of the ocean, where everything is "clean," a Phalarope's interest in backwater lagoons or interior waters is directly proportioned to their impurity. Here at Santa Barbara we have a most conspicuous example in the "Estero," which is a stretch of low-lying, flooded barrens near the car shops and the beach. This watery waste receives not only the contributions of ancient springs now polluted by civilization, but also the frustrated waters of the city's outfall sewer, when the tide is over-high. The combined result is a culture medium of a potency to daunt any but the most hardened human explorer, as well as to compel the attendance of even the most wary of avian gourmets. Here

on a day during the August migrations I have seen the tepid waters teeming with "insect" life to a degree almost unimaginable. The upper strata of a six-inch shallow held bugs or wriggling creatures of at least twenty sorts visible to the naked eye; and of these, ten kinds might be distinguished in a single cubic inch. The lowermost stratum seemed a solid mass of living creatures, while the spaces between, though comparably clear to the eyes, must have been crowded with bacterial life adequate to the support of the visible hosts. Into one of these channels of liquid aliment, huge earthen platters containing soup of a richness beyond human desire, come the Phalaropes to feast and fatten. They come after long fasting, perhaps, and as they settle upon the water they begin to rush about like excited schoolboys under a chestnut tree. Each bird gives a grunt of greedy satisfaction between mouthfuls, so that a curious

Taken in Santa Barbara *Photo by the Author*

THE RACE

gabbling chorus, or plunder song, rises. This strange music of the chase is instantly hushed at the approach of danger, and it can be heard to advantage only from behind a screen of reeds or salicornia.

At a table so rich the Northern Phalarope cannot practice the rhythmical swing-and-dip which characterizes the pursuit of food limited to one kind. He soon learns to be fastidious, and plows through lesser provender

unheeding, while with a tense alertness he holds himself ready to launch at a luring morsel. Now and again the bird will rise, with a vigorous stroke of the foot, and give a little half-somersault, like a diving grebe, save that the lurch is forward rather than down.

Taken in Santa Barbara *Photo by the Author*

AN EAGER QUEST

Whether or not the Northern Phalarope sometimes turns all the way around, as does the Wilson—"spins like an automatic teetotum," as Chapman has it—I am unable to say. All I can say is that in many hours of watching in both summer and fall I have never seen it do so. But the testimony of Messrs. Bowles,[1] Chapman,[2] and Nichols,[3] seems explicit and conclusive on this point, and we are left to admit the comparative worthlessness of negative evidence.

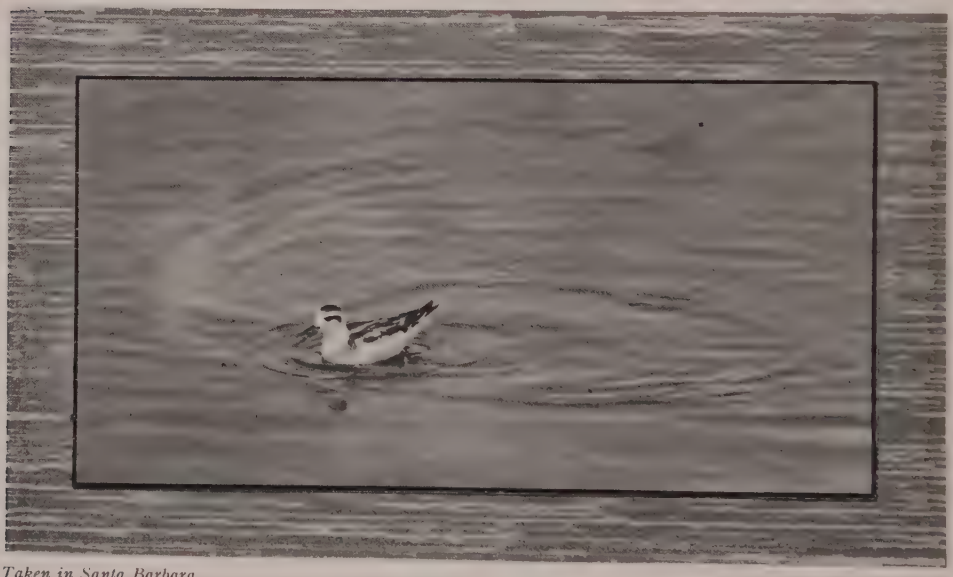
Northern Phalaropes are conspicuous as migrants throughout California both in fall and spring. They are of regular occurrence upon interior waters, as well as along the coast, though they are perhaps somewhat less in evidence upon fresh water in the fall than in the spring. They are great loiterers, and the belated appearance of flocks comprising individuals in full breeding plumage is one of the local puzzles of bird migration. Although they should report in at the northern breeding grounds not later than June 15th, they have been seen at Santa Barbara on the 16th of June (1911, Bowles), at Los Angeles up to June 19th (1897, H. Swarth), and at Goose Lake in Modoc County on June 24th (1912, Dawson).

[1] The Shore Birds of Santa Barbara, by J. Hooper Bowles and Alfred B. Howell: *Condor*, Vol. XIV., Jan., 1918, pp. 6, 7.
[2] Frank M. Chapman in Bird-Lore, Vol. VII., p. 274.
[3] John Treadwell Nichols in discussion at the Thirty-third Meeting of the A. O. U., San Francisco, May 19, 1915.

If these creatures usually have as much difficulty in making up their mind to a certain course of action as did a flock I once observed at Santa Barbara, their tardiness may be more easily accounted for. A flock of about forty birds sighted over Laguna Blanca on the 29th of May, 1915, required about fifteen minutes to decide which particular spot of forty similar acres to settle on. But the birds were no sooner down than a Coot put them to flight; and it was all to do over again. Not less than two hundred times did this aggregation of incompetents weave to and fro before anything decisive was brought to pass.

A study of the evolutions of this nonplussed flock raised many questions which the doctors of psychology are not yet prepared to answer. What is the basis of leadership in flock movements? Is there a flock impulse, or a common consciousness? Are flock decisions put to vote? If so, does the majority rule? Or is unanimity necessary to social action? There is no one to tell us.

It was noteworthy, in this case, that the flock did not describe an actual circle in flight, but that it (that is, *each individual* of it) reversed, about-faced sharply, at the end of each tack. The course of the flock was, therefore, roughly lens-shaped or fusiform. This evolution is more difficult than a blind follow-your-leader turn, and one marvels at the signal code, be it visible, audible, tactile, or psychical, which guarantees an instant rebound of forty feathered bullets without catastrophe.



Taken in Santa Barbara

WALTZ TIME

Photo by the Author

Of the countless myriads of dainty voyageurs which do succeed in reaching the high north, there is no better account given than the classical report of E. W. Nelson:

"The female of this bird, as is the case with the two allied species, is much more richly colored than the male and possesses all the rights demanded by the most radical reformers.

"As the season comes on when the flames of love mount high, the dull-colored male moves about the pool, apparently heedless of the surrounding fair ones. Such stoical indifference appears too much for the feelings of some of the fair ones to bear. A female coyly glides close to him and bows her head in pretty submissiveness, but he turns away, pecks at a bit of food, and moves off. She follows, and he quickens his speed, but in vain; he is her choice, and she proudly arches her neck, and in mazy circles passes and repasses before the harassed bachelor. He turns his breast first to one side and then to the other, as though to escape, but there is his gentle wooer ever pressing her suit before him. Frequently he takes flight to another part of the pool, all to no purpose. If with affected indifference he tries to feed, she swims along side by side, almost touching him, and at intervals rises on wing above him, and, poised a foot or two over his back, makes a half a dozen sharp wing strokes, producing a series of sharp whistling noises, in rapid succession."

Taken in Santa Barbara *Photo by the Author*

A BAND OF DRESSPARADOES

No. 231

Wilson's Phalarope

A. O. U. No. 224. **Steganopus tricolor** Vieillot.

Description.—*Adult female in summer:* Top of head and upper back pearl-gray; nape and upper tail-coverts white; a white supraloral line, and a narrow patch of white below eye; a black stripe, starting from before eye, passes backward, becoming broader on side of neck, changes to deep chestnut on hind-neck, and, continuing backward over shoulder, is interrupted and dispersed over the scapulars; rump and wings grayish brown, the latter with a very little white edging; tail still lighter brown; a reddish brown wash across throat and chest and sometimes sides, as though the coloring matter of the hind-neck had "run"; remaining underparts pure white. Bill black; feet brownish. *Adult male in summer:* Similar to female but smaller, lacking the pearl-gray and chestnut,—slaty-gray and rusty instead; general appearance of back and wings brownish gray, with blackish centers of feathers and some ochraceous edging; black on sides of head and neck almost obsolete; rufous tinge of chest very slight; sides of breast and sides grayish brown. *Adults in winter:* Above plain ash-gray; upper tail-coverts, superciliary stripe, and lower parts white, the chest and sides of breast shaded with pale gray. *Young:* "Top of head, back, and scapulars dusky blackish, the feathers distinctly bordered with buff; wing-coverts also bordered with pale buff or whitish; upper tail-coverts, superciliary stripe, and lower parts white, the neck tinged with buff" (Ridgw.). Measurements—average of 6 females from Modoc Co. and Humboldt Co., Nevada: length (skins) 238.6 (9.40); wing 130.6 (5.12); bill 33.5 (1.32); tarsus 32.6 (1.28). Av. of 6 males from the same localities: length (skins) 218 (8.59); wing 120 (4.73); bill 30.3 (1.19); tarsus 31.9 (1.256).

Recognition Marks.—Towhee to robin size; pearl-gray, chestnut, and black in masses distinctive in adult female. This bird superficially resembles the preceding in some of its plumage; its larger size and especially longer bill and larger feet, as well as really different color pattern, should be noted.

Nesting.—*Nest:* A rude platform of bent grasses buried in grass on damp ground or near water. *Eggs:* 3 or 4; pointed ovate, pale to deep olive-buff, usually with a yellowish tinge, i. e., inclined toward clay-color, spotted finely and heavily with black or brownish black—or, rarely, warm sepia. Av. of 27 eggs in M. C. O. coll.: 31.75 x 23.1 (1.25 x .91); index 72.8. *Season:* May; one brood.

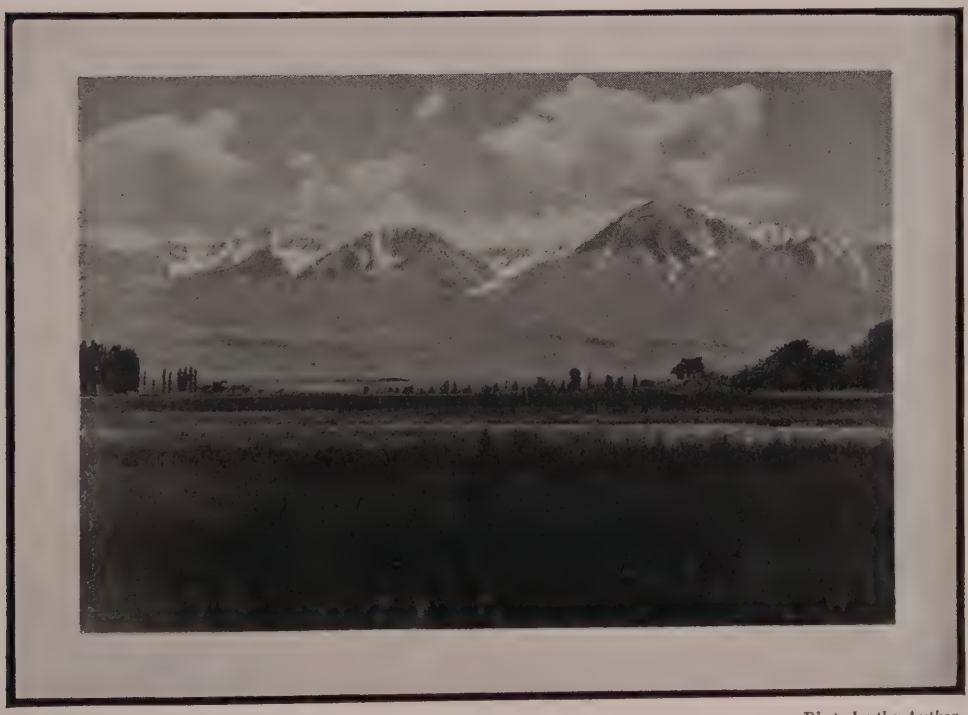
General Range.—Temperate North America, chiefly west of the Great Lakes, south in winter to Argentina, Chile, and the Falkland Islands. Breeds from northern Washington, Alberta, Saskatchewan, and Manitoba, south to central California, southern Colorado, southern Kansas, and northwestern Indiana. Appears in eastern states and Canadian provinces during migrations, and upon the Pacific Coast from southern British Columbia. Winters south of the United States and through South America.

Distribution in California.—Fairly common spring and fall migrant at suitable stations, and appearing coastwise from Santa Barbara south. Breeds sparingly east of the Sierras from Bishop in Owens Valley north to Goose Lake and west to Klamath Lakes; also in the Los Banos section.

Authorities.—Coues (*Phalaropus wilsoni*), Ibis, 2nd Ser., ii., 1866, p. 263 (Colo. R.); *Townsend*, Proc. U. S. Nat. Mus., vol. x., 1887, p. 198 (Lassen Co., June); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 18 (distr. and migr.); *Bowles*, Auk, vol. xxviii., 1911, p. 171 (Santa Barbara); *Ray*, Condor, vol. xv., 1913, p. 111 (Tahoe; desc. and photo of nest, eggs); *Grinnell, Bryant, and Storer*, Game Birds Calif., 1918, p. 332 (desc., occurrence, habits, etc.).

OF ALL birds wearing feathers—and that's exactly all of them, since the Grecian plucked a rooster to make "Plato's man"—the Wilson Phalarope is the most exasperating. This is a harsh judgment to pass on so gentle a bird, and argues a certain narrow-mindedness,—a narrow-mindedness which the author hastens to admit, for it is that of the now nearly extinct genus, oölogist.

Our first encounter with the Wilson Phalarope befell in a northern swamp on the 1st of June, 1905. We had been wading in hip boots after Western Grebe portraits, and had reached that point just off shore where the boots ceased to splash, but still made a noise like bovine osculation, when we came upon four Phalaropes, two males and two FEMALES. The females of *this* species are the original militant suffragettes. But they are no



Taken in Inyo County *Photo by the Author*

A NESTING HAUNT NEAR BISHOP

Taken in Modoc County *Photo by the Author*

WILSON PHALAROPE, MALE AND FEMALE, A-WING

longer militant. They do not have to be. They have arrived. It is sober truth to say that these sturdy pioneers of feminism have assumed all the functions of leadership, including that of courting, and that they have delegated to the males all domestic cares and responsibilities, save that of laying eggs.

These birds before me were evidently paired and, as manifestly, had local attachments for that particular stretch of grass and weeds and ooze. One pair lit near me as I was photographing a Black Tern's nest, and the male began to poke about in the reeds, like a hen that has forgotten, or pretends to have forgotten, the precise location of her nest. The female dogged his steps and he occasionally chased her off in a petulant way, precisely as a female of any more rational species would have done under like circumstances. Finally, the male housewife disappeared in a certain clump toward which he had already twice feinted. The female came to a standstill and mounted guard for as much as ten minutes. The situation was perfectly clear from an oölogical standpoint. The eggs were being covered until it suited my pleasure to claim them. Imagine my surprise, therefore, when the female suddenly flitted over the weeds to a more distant clump, to which her dutiful spouse had sneaked, routed him out and made off with him to parts unknown.

On succeeding days I raked that neck of the swamp with a fine-toothed comb, but all to no avail. The birds came and went without rhyme or reason, now one, now two, and now all four at once, from I knew not where, and disappeared again as mysteriously. If they lighted, the reeds swallowed them up; if they flew, they did it in a demure way which was a rebuke to curiosity. In flying, a bird would sometimes give voice to its disquiet in a sort of hoarse, barking note, a rough monosyllable, *wib*, which was also occasionally subdued to a mellow croak, *oont*. This was often a summons, and if uttered by a single bird aloft, would serve to rouse its mate from some recess of the grass; whereupon both would flit away, as though renouncing all claim to that locality.

As it happened once, so it happened a dozen times; and a like experience befell not only upon each of two succeeding Junes, but it has been practically repeated every season since, where Wilson Phalaropes have been encountered at all. Others testify to the same experience. Mr. Robert E. Rockwell, writing of the Barr Lake region, in Colorado, declares this Phalarope to be "the most baffling bird as regards nesting habits with which our field work has brought us in contact."[1] He says further: "That the nests are wonderfully well concealed both through protective coloration of the eggs and through the cunning of the parent

Taken in Fresno County *Photo by the Author*

AN ANXIOUS FATHER

birds, is beyond question; yet this alone would hardly explain our lack of success in finding the nests; for had the birds been actually nesting in the numbers their relative abundance would seem to indicate, it would hardly have been possible for us to fail in our search so consistently." And he offers the suggestion that the local summer population contains a large admixture of non-breeding birds who, nevertheless, evince an interest in

[1] Condor, Vol. XIV., p. 122.

Taken in Fresno County MR. WILSON AT CLOSE RANGE *Photo by the A*

family affairs. The suggestion is worthy of consideration, for it may well be that a society which has evolved females in pants has also produced a goodly number of bachelor-maids and complacent aunties, not to mention fortunate males who have managed to escape the wiles and blandishments of the ardent sex.

That the male who has once taken the veil does not shirk thenceforth the arduous duties of paternity, we have most emphatic proof. The male bird not only incubates the eggs, but has sole care of the chicks when hatched. While in camp at Goose Lake, in 1912, I found that young Phalaropes were moving about and hiding in the grass by the 25th of June. The male birds danced close attendance upon our movements and showed every extravagance of solicitude; but the females merely looked in occasionally, once in ten minutes or such a matter, to see that their worser halves were giving proper attention to their duties in the nursery, and then returned, content, to the distant club-room. One distraught father I nearly seized in his abandon of grief. Again and again he cast himself down in the grass and put on agonies both of distress and invitation, with tones varied to suit. His chief pose was to stand with head and breast depressed to the ground and with tail elevated so as to show the white underparts conspicuously. At other times he would rise clear of the grass a-wing and fall back again and again as though quite exhausted. Withal he was such a pale, pathetic, and manifestly overworked household drudge that one felt quite ashamed to add to his burdens. The situation wrought upon the nerves. Here at the best was Topsy-Turvy Town; and a mere man, alone, and unattended, had fearful forebodings of what might befall him—in California.

During the fall migration Wilson Phalaropes appear in considerable numbers about our southern ponds and brackish shallows. While they, too, resort to the surface of the water, they are rather more given to wading or running about on shore, in company with Sandpipers. But one who

is fortunate enough to encounter a company of these birds on the water has a treat in store. Instead of swinging from side to side with a rhythmical motion, as do the "Reds" and "Northerns," the Wilson whirls all the way around. Moreover, he keeps on whirling, and though he pauses for the fraction of a second to inspect his chances, he goes on and on again like an industrious, mad clock. One bird which I had under the binoculars turned completely around 247 times in one spot, without stopping save for instantaneous dabs at prey. These dabs were directed forward or backward, i. e., with or against the direction of the body motion. A single gyration normally contains two such minute pauses, accompanied by a hitching motion of the head; and these are evidently the periods of maximum attention, since they are followed by, or rather flow into, the prey-stroke, if game is sighted. "Game" is not always abundant nor certain, and I have seen a bird whirl a dozen times without a single stroke.

Most interesting of all is the probable fact that each bird has his habitual direction of revolution, clockwise or anti-clockwise, but not both. One would think that the whirling dervishes, at least he of the 247

Taken in Inyo County *Photo by the Author*

NEST AND EGGS OF WILSON PHALAROPE

stunt, must needs unwind; but no, when he resumed his task a moment later it was to continue anti-clockwise.

It is a bewildering sight to see two or three of these birds operating in close proximity, and close attention is enough to develop pink mice on the retina.

The foregoing account was written in 1914. Having been privileged to spend the seasons of 1916, 1919 and 1922 in more or less intimate contact with this species upon its breeding grounds, I am moved to record additional data.

We have already acknowledged that Mrs. Wilson wears the breeches, and that she is more inclined to club life than she is to household cares. The case is, however, much more serious than we had at first suspected. I owe the original intimation of the true state of affairs to Mr. A. O. Treganza, the veteran oölogist of Salt Lake City; and subsequent investigation of my own has abundantly confirmed his claims. Mrs. Wilson is a bigamist. Not occasionally, and of course not invariably, but very usually *she maintains two establishments*. Now that attention is called to it, we see that our note-books are full of references to female Phalaropes seen in company with two males. The association cannot be accidental, for we are in the very midst of the breeding season. The males, frightened by our presence in the swamp, and not daring to remain longer upon their eggs, have sought the comforting presence of the head of their house. The three take counsel together, and it is only when the redoubtable lady announces that the way is clear, that the dutiful cuckolds trail off to their nests.

On the 6th and 7th of June, 1922, our M. C. O. party of three members gave close attention to a swamp in Long Valley, southern Mono County, at an altitude of 7000 feet. We took eleven sets, of four eggs each, of the Wilson Phalarope, and we noted a distinct tendency of the nests to group themselves in pairs. In only one instance, however, were we able to trace clearly a connection between two occupied nests. These two, containing heavily incubated eggs, were situated only 42 feet apart, and the two males who were flushed from them by a surprise coup of ours joined themselves immediately to the only female who had shown any solicitude concerning this section of the swamp.

The extraordinary state of affairs herein divulged is probably both cause and effect. According to a physician friend of Mr. Treganza's, who, pending the completion of his studies, desires his name withheld, the females of Wilson Phalarope are excessively afflicted with diseased ovaries. Thus, hundreds, perhaps thousands, of non-breeding females are found during summer in the vicinity of Salt Lake, and examination shows that invariably these non-breeders are possessed of diseased and non-function-

ing organs. As a result of this condition, which affects perhaps two-thirds of the entire number of females, the males, if they would breed at all, must accept at least one rival, or male partner, in their family relation.

But one who knows Phalaropine character soon suspects that this ovarian disease, which is forcing polygamy upon the race, is itself an effect rather than a cause. The cause is the excessive development of the sex instinct in female Phalaropes. The female of *Steganopus tricolor* is a wanton whom no reasonable indulgence will satisfy. It is a commonplace of the nesting swamps to see two, three, or even four females pursuing a single male with amorous intent. And the harassing pursuit is taken up all the more vehemently after the eggs have hatched, when the male has ceased to think of passion, and is devoted to the care of a growing family. It is, without doubt, this strange excess of *libido* which has brought the females of the species first to their husky perfection of size and power, and then, lacking outlet, has deranged the sex organs themselves.

That this weakness is one of long-standing is further evidenced by the fact, based on embryological studies, that the infant females of *S. tricolor* outnumber the males, three to one. Of six infant daughters, that is, born in a season to Mrs. and the Messrs. *Steganopus*, only one will be sufficiently restrained to breed successfully, and she, in turn, will produce annually, two decorous males (destined for the harem), one lusty brood-hen and five hopeless wantons. I submit that this is the most instructive example of avian depravity ever brought to light.

No. 232

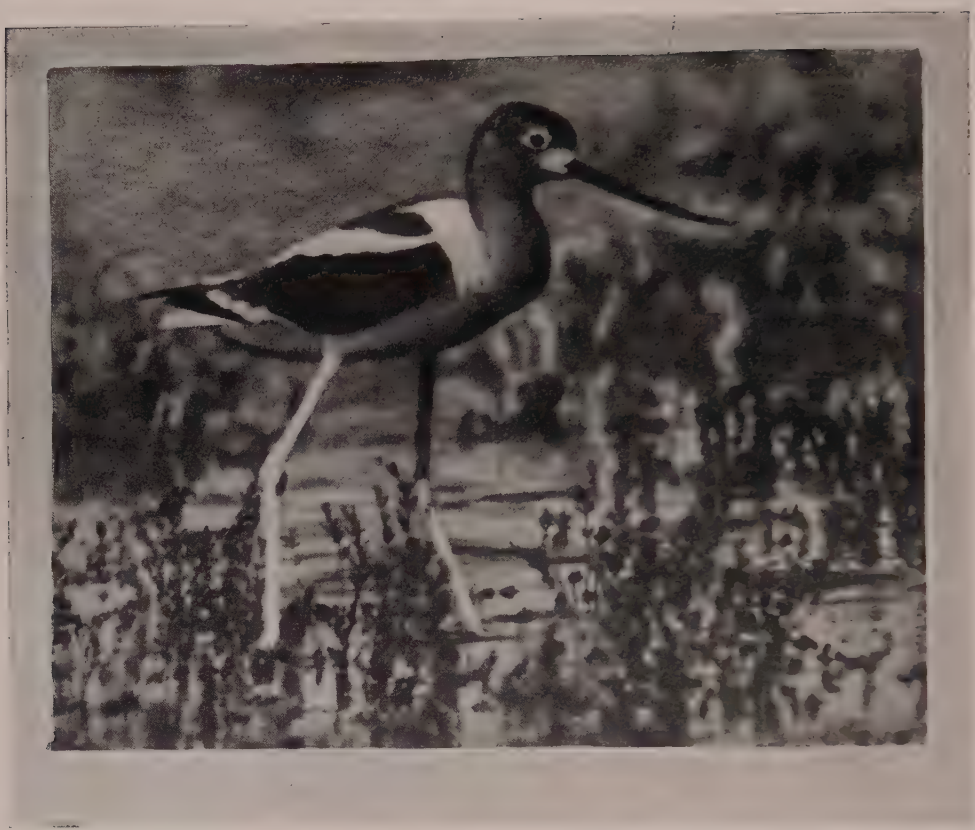
American Avocet

A. O. U. No. 225. **Recurvirostra americana** Gmelin.

Description.—*Adult in summer:* Head and neck all around and breast light cinnamon-rufous (shading from pale pinkish buff to cinnamon, or from vinaceous buff through avellaneous to wood-brown); eye-ring white; region about base of bill whitish; wing-quills and coverts (except inner secondaries and tips of greater coverts) deep brownish black; back, inner scapulars, and inner quills, lighter brownish black; remaining plumage, including outer scapulars, rump, tail, etc., white (tail tinged with ashy). Bill long, slightly recurved toward tip, black; legs dull blue. *Adult in winter:* Similar, but without cinnamon-rufous—white instead; tinged with pale bluish ash, especially on top of head and hind-neck. *Immature:* Like winter adult, but hind-neck touched with rufous; scapulars, etc., buffy-tipped, or mottled; wing-quills tipped with whitish. Av. of 10 Los Baños specimens: length (skins) 409.3 (16.11); wing 231.7 (9.12); bill—chord of culmen 92.6 (3.645); tarsus 95.1 (3.74).

Recognition Marks.—Crow size; long legs; black and white and cinnamon-rufous in masses; long, slightly or strongly *upturned* bill.

Nesting.—*Nest:* A slight platform of weathered reeds or plant-stems on damp



Taken in Merced County *Photo by the Author*

BROADSIDE
PORTRAIT OF AMERICAN AVOCET

ground in or near swamp. *Eggs:* 4, 5 of record; ovate or elongate ovate; pale clay-color (between chamois and dark olive-buff), very uniform, boldly, finely, uniformly, and rather heavily spotted with brownish black (dark sepia), washing out to Saccardo's umber. Av. of 29 eggs from Los Banos: 48.1 x 32.9 (1.894 x 1.296); index 68.4. *Season:* April 20–June 1; one brood.

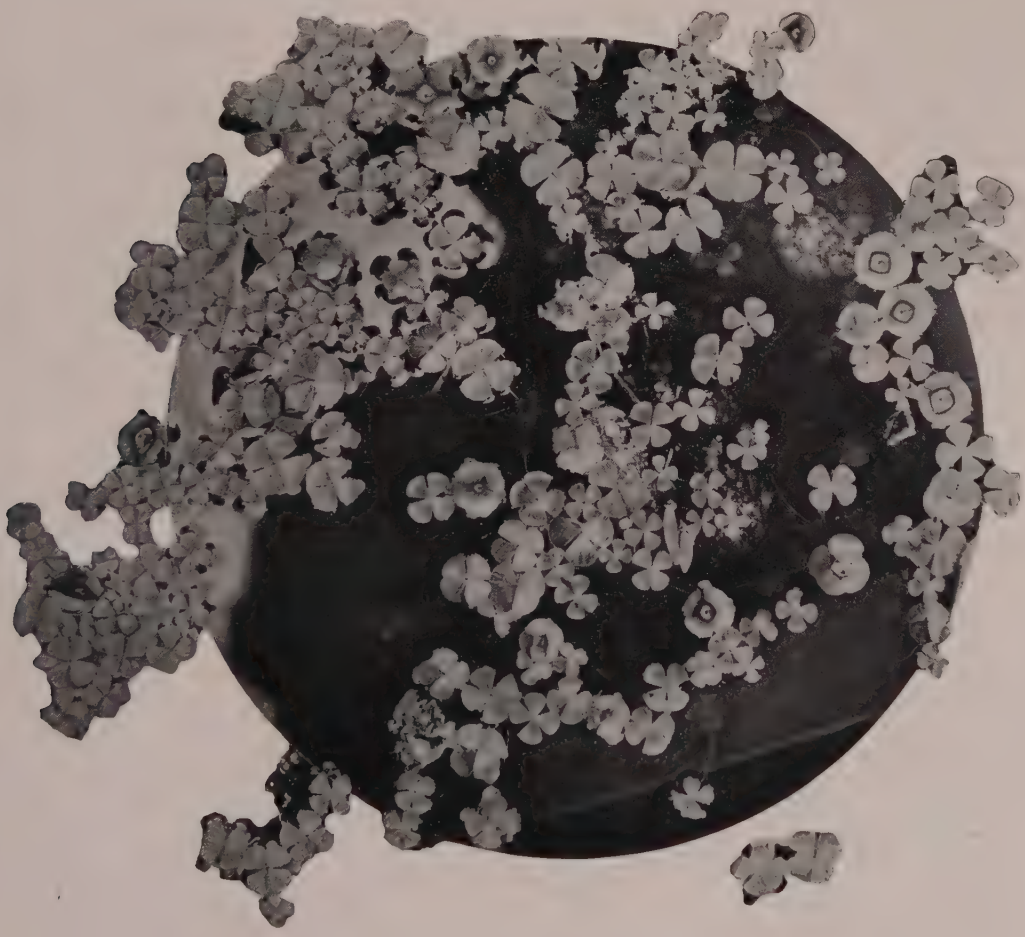
General Range.—North America, chiefly west of the Mississippi River. Breeds from eastern Washington, central Alberta, and Manitoba (formerly to Mackenzie), south to southern California, southern New Mexico, and southern Texas, northern Iowa and central Wisconsin. Winters from southern Texas to Guatemala.

Distribution in California.—Breeds commonly in the Sacramento and San Joaquin valleys, and in the Modoc region; less commonly (formerly abundantly) in the San Diegan district. Of more general distribution during migrations, appearing coastwise from San Francisco south. Of casual occurrence in winter, recorded as far north as Stockton and Marin County, and at Lone Pine, Inyo County (Nelson).

Authorities.—Vigors (*Recurvirostra occidentalis*), Zool. Jour., iv., 1829, p. 356 (San Francisco; winter plumage); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35,

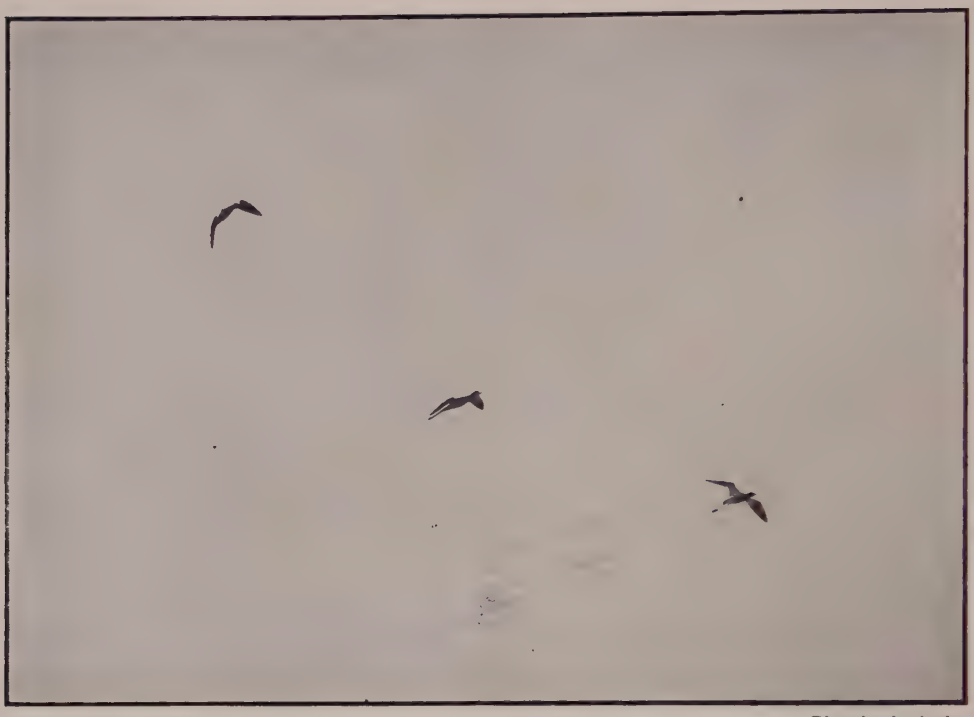
1910, p. 19 (distr. and migr.); *Lamb and Howell*, Condor, vol. xv., 1913, p. 117 (Buena Vista Lake, breeding); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 24 (San Joaquin Valley, habits, etc.).

ODDITY in a bird makes both for distinction and extinction. Everybody has seen pictures of the Avocet, with its curiously upturned beak and its long blue legs; and almost everybody has received the impression that it is one of the doomed races, a marvel of the elder time. While it is true that the bird is no longer to be found east of the Mississippi River; and that the species as a whole has been reduced to perhaps one-tenth of its former numbers; it has, nevertheless, been fortunate in finding extensive asylum in the central valleys of California; and here it may be studied today as of yore, to every advantage.



Taken in Merced County *Photo by the Author*

A DECORATED MIRROR FOR MILADY AVOCET



Taken in Merced County *Photo by the Author*

THE BELT OF ORION

The requirements of the Avocet and of its still more curious fellow wader, the Black-necked Stilt, are somewhat exacting. They require considerable stretches of shallow water as a field of operations, and low-lying islands, or mud reefs, for nesting, where they may at least be free from the depredations of wolves and wild-cats. If to these be added bordering stretches of pasture land or alkaline waste, and diversification of cattails and tules in the deeper waters, so much the better. These conditions are fairly met on the shores of a dozen of our larger lakes, Tulare, Honey, Klamath, and the rest, but best of all in the grazing country tributary to the Mendota Canal system, and, typically, at Los Baños in Merced County. Certain great stretches in this region are annually flooded with the excess of the Sierran snows, and the flooding is controlled in a sort of alternating rhythm to provide forage for the cattle of the great Miller and Lux Corporation. The magic touch of water following its expected channels quickens an otherwise barren plain into a paradise of avian activities. Ducks of six or seven species frequent the deeper channels; Coots and Gallinules and Pied-billed Grebes crowd the sedgy margins of the ponds; Herons, Bitterns, Ibises, and Egrets, seven species of *Herodiones*,

all told, occupy the reedy depths of the larger ponds or deploy over the grassy levels. Rails creak and titter, Red-wings clink, Yellow-headed Blackbirds gurgle, wrangle, and screech; while the Marsh Wrens, familiar spirits of the maze, sputter and chuckle over their quaint basketry. The Tricolored Blackbirds, also, in great silent companies recruited from a hundred acres, charge into their nesting covert with a din of uncanny preoccupation. Over the open ponds Black Terns hover, and Forster Terns flit with languid ease. The Killdeer is not forgotten, nor the Burrowing Owl, whose home is in the higher knolls; but over all and above all and through all comes the clamor of the Black-necked Stilt and the American Avocet. The Avocet is outnumbered, three to one, by his lesser kinsmen, but I have seen a dozen pairs in a single field and three score in a day's roaming; and I have seen isolated pairs a mile from their fellows.

The Avocets are not rigidly gregarious; they associate freely, however, upon the nesting ground, and are to be seen in small scattered groups as often as singly. Since the tones of the surroundings are chiefly wrought out in gray-greens, grass-greens, and pale blues, the birds have no recourse to the arts of protective coloration, but appear boldly in a garb of black and white, softened on head and neck by cinnamon-brown, and this habit serves to keep them ever before the eye, the observed of all observers.

Taken in Washington *Photo by the Author*

HOISTING THE SIGNAL OF DISTRESS

Because of this prominence, the birds are very sensitive to espionage while they are on their nests, and will flush at a hundred or even two hundred yards. An automobile, however, is less feared than a man on foot, and I have found it the surest way to locate their nests in a difficult country to study the landscape with 8-power glasses from the seclusion of a covered machine.

These birds are not only waders, but swimmers and flyers as well,

Taken in Washington *From a photograph, Copyright 1906, by W. L. Dawson*

THE APPEAL TO PITY

and they show little preference among these modes of activity. If you approach a wading Avocet a little too closely, he may walk off with dignified carelessness; and if the retreating bottom takes him beyond his depth, he is instantly at ease upon the water and swims off, duck-fashion, with keel held low in front, now glancing at you over one shoulder and now over the other. Or else, either from land or water, he takes quickly to wing, letting the long legs first dangle and then straighten out behind him as he progresses. Rising is thus a bit awkward, and in settling, also, the legs must first be brought forward to engage the surface of reef or pool before the wing motion ceases. In flight the motion may be either fairly rapid or quite leisurely, according to whether the bird is frightened

or merely curious; while at sailing he is a passed master, the neck and bill being outstretched to fullest capacity to offset the long rudder of the legs.

How exactly fitted these handsome creatures are to their somewhat unique environment, may not be fully realized until one attempts to wade through their oozy haunts. The bottom here may be very treacherous, with frequent concealed pitfalls and subaqueous passages. In wading a northern swamp after Avocets both my companion and myself shipped water in our hip boots repeatedly, in spite of the greatest precaution; and once I went into a hole so neatly, with both feet, that I had a momentary vision of total disappearance, and shouted in terror. Fortunately, however, the sides held when my outstretched hands met them. But the bird is prepared to meet any inequality of bottom, since it does not fear submergence, and its legs are carried at a slight angle, that is, divergent, to preserve the equilibrium and guard against sudden surprise.

In feeding along the water's edge, or at moderate depths, the Avocet does not dabble at random, but sees and snatches its prey from the surface of the water with great agility, assisting the passage of the morsel down the long bill by a quick forward thrust of the head. Once, however,

Taken in Merced County *Photo by the Author*

ANOTHER SOLICITOUS MOTHER

"IN DEFENSE. . . THE MOTHER AVOCET WILL DO HER UTMOST"

I noted an entirely different method of procedure. It was on the lagoon at Sandyland, near Santa Barbara, where the shallow tide pools contained a multitude of tiny fish fry. These an Avocet endeavored to secure by a rapid sweeping motion of the bill. The bill was partly immersed with the mandibles apart, and the swinging motion had a rapidity and regularity about it that seemed almost aimless; but the bird paused now and then—as often, apparently, as it felt a promising contact—and made a quick grab, with only occasional success. In advancing, at forage, the leg is withdrawn quickly along the line of the tarsus, with folded or collapsed foot, and thrust forward again in such fashion as least to disturb the ooze at the bottom.

As is not, perhaps, so generally known, the Avocet is also a ready diver, or, more accurately, dabbler, since it feeds from the surface of the water with the tipping motion characteristic of some of the ducks. In this operation, the legs are not at all exposed, but only the tail and the rump, the legs being evidently required under water to maintain the vertical position. In dabbling, the birds must depend altogether upon the sensitiveness of the bill, for the water becomes too much disturbed for vision. The confidence in strangers sometimes exhibited by these birds in carrying on their diving operations is very flattering; and one only wishes that it had been uniformly deserved during the years which have so sadly reduced their numbers.

Avocets are rather noisy when disturbed or threatened, but are not

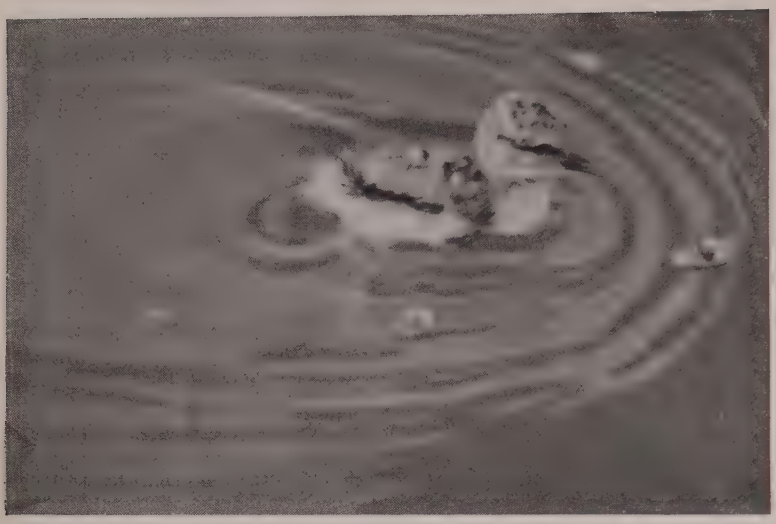
especially so at other times. Their notes consist chiefly of simple shrill cries, neither very musical nor yet strident, "*crick-crick-crick-crick*" or *creek-creek*—something, in fact, after the order of the Curlews, with many excited quaverings beside.

It is, however, when its nest is threatened that the bird displays its utmost charms. It is anxious at the outset to distract attention, even before discovery of the eggs is certain; and as one pokes about in a flat-

Taken near Los Banos *Photo by the Author*

YOUNG BLADES

bottomed boat or canoe, a half dozen of them at once may be seen hoisting signals of distress, and inviting pursuit. One example may suffice. With splendid light and well equipped for photographic appreciation, we put the canoe against a tiny reef upon which we saw a nest with three eggs. The mother bird had flushed at a hundred yards, but seeing our position she flew toward us and dropped into the water some fifty feet away. Here she lifted a black wing in simulation of maimed stiffness, and flopped and floundered away with the aid of the other one. Seeing that the ruse failed, she ventured nearer and repeated the experiment, lifting now one wing and now both in token of utter helplessness. After a while the male joined her, and we had the painful spectacle of a crippled family, whose members were uttering most doleful cries of distress, necessitated apparently by their numerous aches and breaks.



Taken in Merced County *Photo by the Author*

A VENTURESOME INFANT

Once, for experiment's sake, we followed, and the waders flopped along in manifest delight, coaxing us up on shore and making off through the sage-brush with broken legs and useless wings. But we came back, finding it better to let the birds make the advances. Mr. Bowles hit upon the scheme of splashing gently in the water, and it served admirably to excite the birds and make them reckless; and the click,

Taken in Washington *Photo by the Author*

NEST AND EGGS OF AMERICAN AVOCET

click of the camera was sweeter music in our ears than the explosion of death-dealing cartridges before a band of elk.

The birds were driven to the very limit of frenzy, dancing, wing-trailing, swaying, going through last convulsions and beginning over again without regard to logical sequence, all in an agony of effort to divert attention from those precious eggs. It may seem cruel to have harassed them so, but we were sustained by the integrity of our purpose, which was not robbery, but snap-shottery; and we neglected no opportunity to work upon their feelings. Neighbors came up and looked on sympathetically, or joined in the clamor.

As time elapsed, however, the color of the play changed. Finding that the appeal to cupidity was of no avail, the birds appeared to fall back upon the appeal to pity. Decoying was useless, that was plain; so they stood with upraised wings, quivering and moaning, in tenderest supplication. It was too much even for conscious rectitude, and we withdrew, for once, abashed.

But if one fancies that the Avocet's repertory either of cajolery or abuse is exhausted in defense of her eggs, he should wait until a chick is

Taken in Merced County COUSINS: BABY AVOCET (in lead) AND BABY STILT *Photo by the Author*

discovered freezing in the grass. He is an engaging little fellow, as dutiful as Casabianca, and as gentle as Pity's self. Bidden to remain quiet, he will not accept even the rudeness of the discovering hand as an excuse for disregarding the parental inhibition. I have lifted from the ground and placed upon the water a "frozen" chick which suffered itself to be blown about like a fallen rose-leaf rather than betray the slightest sign of life. In defense of such a child it is no marvel that the mother Avocet will do her utmost. The bird in the picture on page 1198 has hurled herself from the sky repeatedly, as though to dash out her brains on those of the baby's captor; but each time she has deftly swerved at the crisis, and has gone back to repeat the operation. Yet this same mother, a few moments later, has changed the line of attack and is doing off a skirt dance with all the seductiveness of a Pavlowa. *Varium et mutabile semper femina.* Another actress I cannot forbear to mention, for she (correctly) divined our oölogical proclivities. Instead of making a great disturbance and so inciting us to the discovery of her hidden chick, she retired to a discreet distance and crouched ostentatiously in the incubating posture upon imaginary eggs—sat there motionless, too, for a considerable stretch of time, thus truly simulating nature instead of over-acting, and "teetering," as both the Killdeer and the Oystercatcher are so prone to do in like circumstances.

Taken near Los Banos *Photo by the Author*

KEEN TO BE OFF

BABY AVOCETS OF THIS SIZE ARE THE MOST WIGGLESOME CREATURES IMAGINABLE

Nesting at Los Baños is conducted in May. Young birds are normally astir by the 20th of that month; but there are many disasters incident to changes of water level or to predatory animals. Second nestings are attempted in case the first is lost, and family cares are sometimes protracted into July. Nests, at their worst, may consist of a mere depression in the dry earth, around which a few broken twigs have been gathered; at their best, a soft cushion of dried reeds or grasses, carefully culled, may support the four eggs. The birds affect a sort of puritanical simplicity, and will usually employ a single sort of material even where many are available. The birds are sometimes called upon to meet the exigency of rapidly rising water, although they are not quite so clever at it as are the Stilts, and I have seen drowned-out nests. With the approach of the water the wise ones gather succulent vegetation or pluck grass-roots, earth and all, and force it under the eggs. In this way they will erect a truncated cone several inches in height, and often succeed in escaping the inundation. One monumental nest I found on the 3rd of June, 1914, which supported eggs in the very act of hatching, above five inches of water. There was quick wit and true!

Taken in Merced County *Photo by the Author*

NEST AND EGGS OF BLACK-NECKED STILT

No. 233

Black-necked Stilt

A. O. U. No. 226. **Himantopus mexicanus** (Müller).

Description.—*Adult male in breeding plumage:* Black-and-white. Underparts, including axillars (but not lining of wings), face nearly to eye, forehead, a blotch below and behind eye, sides of cervix (invading black), lateral and upper tail-coverts, and rump, white, suffused on throat and breast in varying proportions by dull pinkish (pale vinaceous buff); tail pale gray, brownish gray, or dusky; remaining upperparts, including lining of wings, lustrous black with greenish reflections. Bill, bent slightly upwards at middle, black; iris carmine; feet and legs bright red (drying yellowish), nails black. *Adult male at other seasons:* Without pink flush of underparts. *Adult female:* Similar to adult male, but without pinkish flush, and black of back and scapulars replaced by sooty brown. *Immature:* Like adult female, but black of back, etc., bordered, and that of head and neck finely mottled, with dull whitish or buff. *Downy young* are mottled ochraceous buff and black above, clearer buffy below. Measurements: length about 381 (15.00); wing (av. of 10 Berkeley specimens) 228.8 (9.01); bill 64.9 (2.555); tarsus 109.3 (4.30); exposed portion of tibia 70.5 (2.775). The total length of the legs, the "stilts" proper, represented in a series of 16 skins, is very variable, 160–250 (6.30–9.85) (exposed portion, including outstretched toes), the females inclining to the smaller and the males to the larger of these dimensions.

Recognition Marks.—Tern size, but appearing larger; long legs and black-and-white coloration distinctive.

Nesting.—*Nest:* A simple platform of weathered weed-stalks and grasses, on ground near marsh, or else a pyramid of such materials built up out of shallow water. *Eggs:* 4, 5 of record; dark olive-buff, with a yellowish or greenish tinge, boldly spotted or vermiculated and blotched with black and, rarely, a little sepia. Av. of 48 eggs (including 4 sets of 5 from Los Banos) in the M. C. O. coll.: 42.9 x 30.5 (1.69 x 1.20); index 71. The longest egg measuring 44.96 (1.77) is .51mm (.02) shorter than the shortest Avocet egg (see under Avocet); so that these two eggs are almost certainly distinguishable under any circumstance.

General Range.—Warm temperature North America, Middle and South America, to Amazonia and Peru. Breeds in suitable localities nearly throughout its present range. Breeds from central Oregon, southern Idaho, and southern Colorado, southward; also from the coast of South Carolina southward through Georgia, Florida, and the West Indies. Formerly bred north to New Jersey. Winters from southern Lower California, southern Texas, Louisiana and Florida southward.

Distribution in California.—Common summer resident in interior sections, especially the San Joaquin-Sacramento Valley, and in the Modoc district. Also breeds in interior sections of the San Diegan district; formerly in brackish coastwise marshes,—Oceanside, Nigger Slough, the Estero (Santa Barbara), etc. Occurs more widely during migrations, appearing coastwise north to Marin County.

Authorities.—**Gambel** (*Himantopus nigricollis*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 224 (Santa Barbara); *Coues*, Birds of the Northwest, 1874, p. 462 (syn., desc., habits, etc.); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 25 (San Joaquin Valley; habits).

AFTER ALL, to our human judgment, the outstanding feature of bird life is its marvelous diversity. From the Hummingbird, which weighs a few scruples and is so adroit of wing that it can fly backward, to that waddling avian pig, the Dodo, which weighed six stone and couldn't fly at all, is indeed a far cry. But the contrast afforded here is no isolated example of difference in the bird world. Indeed, there is no single feature of avian anatomy which Dame Nature does not, in one place or another, seize upon and play up to the limit of imagination. Is it feathers, that distinguishing characteristic of the bird? Well, then, the whimsical arbiter of fashions will snatch a handful anywhere, and if she does not pluck it off outright, she will tweak, pull, twist, exaggerate, and distort until we have such creations as the resplendent trains of the Quezal and the Peacock, or the absurd headgear of the Six-wired Bird of Paradise, into which six enormous hatpins have been thrust. Is it color? Some, like the Crow and the Drongo, she plunges into dye-vats filled with steaming logwood; some, like the Titmouse or the Brown Towhee, she covers with dust; some, like Poor-will, she drapes in lichen-hues; and some, like the Wood Duck, she clothes with the rainbow. The Ptarmigan is purest snow, while at some of the Lories this jesting dame has hurled her palette, paint, brush, and all, and has achieved thereby a very tragedy of color. Nor are major organs spared in the craze for variety. Wings may be like sails, or scimitars, or flippers, or else suppressed outright. Beaks are Nature's special plaything, as witness the Avocet, the Toucan, and the Pelican. But for the subject of this sketch has been reserved Nature's special humor as to legs. A creature actually only four inches long as to body—exclusive, that is, of neck and tail—has legs eight or ten inches long. The Stilt's tarsus, or "instep," is alone longer than its body. The Stilt is, therefore, the wader

Taken near Los Banos
Photo by the Author

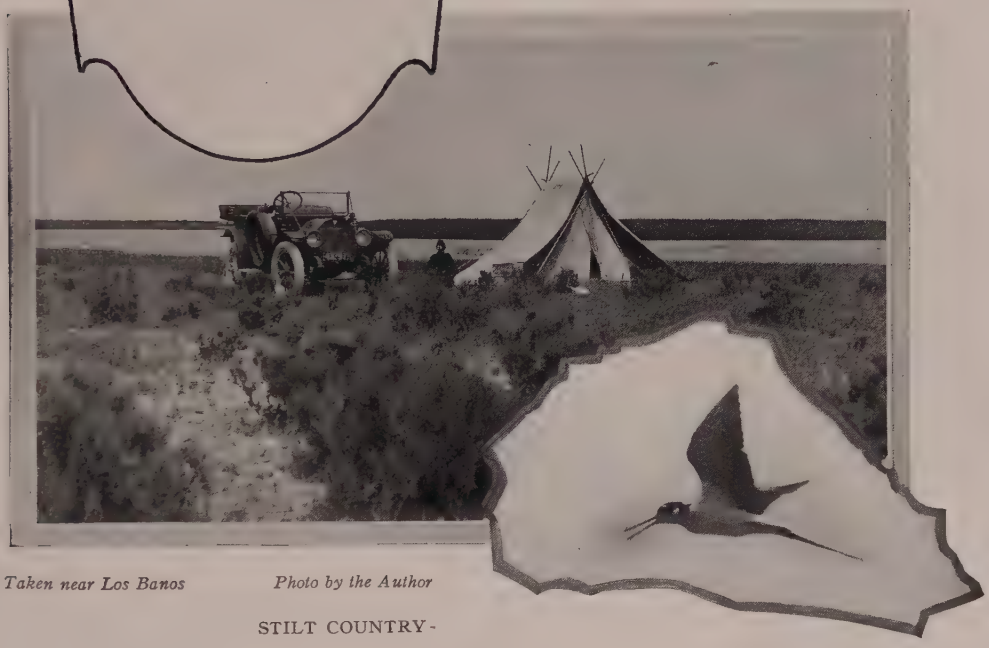
AN AVIAN
TELEGRAPH POLE

Taken near Los Banos DADDY LONGLEGS *Photo by the Author*

par excellence, and we shall see that it makes out very well with its extraordinary equipment.

I know of nothing which admits a man more surely to the intimate wild of nature than the sight of a company of Black-necked Stilts feeding quietly along the sedge-grown margins of a shallow pond. One feels a delicious sense of privilege, as though he were being permitted to gaze upon some assemblage of antedeluvians. Concealment on the bird's part is impossible, for his plumage is highly advertising. Better, though, if the observer have a blind or a tent or, at least, a covered automobile. Fancy automobiles at a Miocene spectacle! The birds are impossible; you have settled that in advance. This will be a clownish performance with many a mishap of broken stilts or of damaged shins. But as we watch the deft celerity and alert confidence of these gifted waders, incredulity changes to wonder, and wonder to admiration. If the

water is only knee deep (and we always mean "heel" when we say "knee" in bird-lore), then this bird threads the mazes of the budding sedges adroitly, snatching now a larva from a plant stem, and now

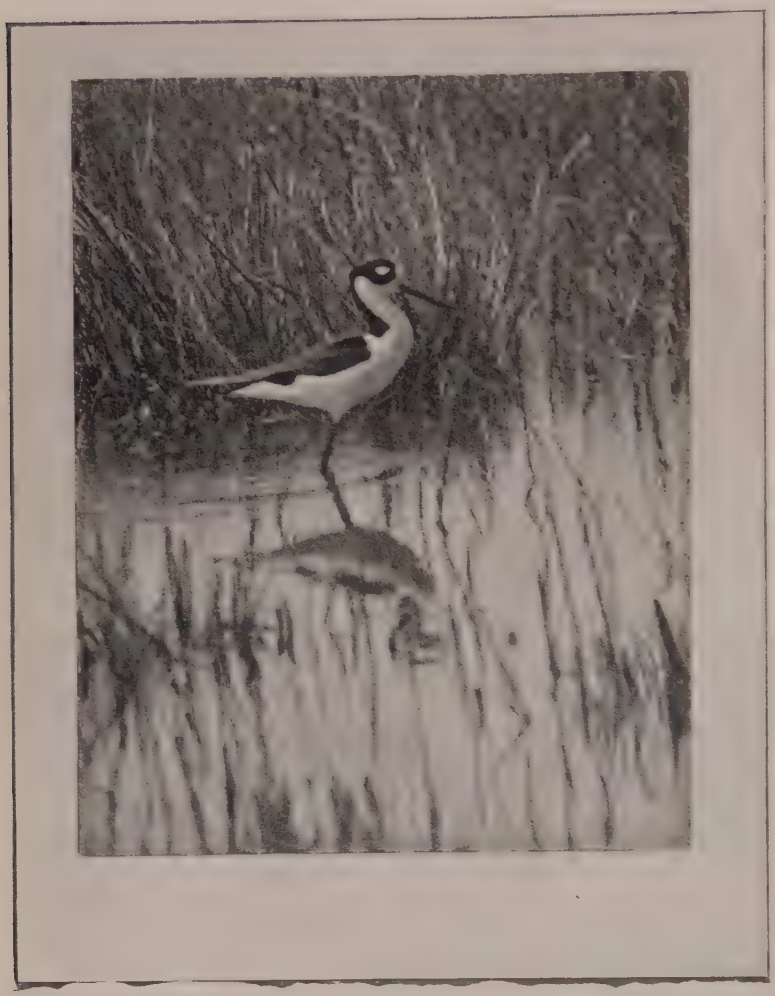


Taken near Los Banos *Photo by the Author*

STILT COUNTRY

Taken near Los Banos *Photo by the Author*

A PAIR OF STILTS



Taken in Merced County *Photo by the Author*

BLACK-NECKED STILT APPROACHING NEST

an insect from the surface of the water. The foot is withdrawn backward, with a deftness which scarcely disturbs the water's face, and does not at all roil the oozy bottom. The Stilt will wade about belly-deep, if need be, and stoop to secure dainties off the bottom at that. It is quite at home, also, on dry land, and will snap with unfailing dexterity at the insects which rise bewildered from the ground.

Stilts are a commonplace of migrations in California, arriving from the south about the middle of April. They visit all the wayside ponds and plashes left by the rainy season, or created by the overflow of irrigation. They are usually silent and not too wary at this season, and their frank enjoyment of our wayside fare is one of the gladsome sights of the season. Once, on the beach near Gaviota, I saw a company of Stilts breasting the ocean waves; but it must have been a rare experience for them, as it was a rare sight for us. They are poor swimmers, and their frail pipe-stems were hardly made to withstand the suck of the "hurryback."

It is to the breeding home, therefore, that we must go to see the Black-necked Stilt at its best. Los Baños will be the first place thought of, although the Stilt is much better distributed throughout the State than the Avocet, and clings to many haunts which its larger fellow has

forsaken. It does not despise limited accommodations, and will tarry in small numbers, if need be, to utilize available forage space. Thus, according to Bradford Torrey, two pairs, or possibly three, raised broods successfully on the Estero in Santa Barbara in the summer of 1912.

Taken in Kern County *Photo by Donald R. Dickey*

AN UNUSUALLY HANDSOME NEST

But on the flooded plains of the San Joaquin Valley you shall see hundreds of them—hundreds at once, if you wish. The invasion of their haunts in May is the signal for wild alarm. Every individual in the local colony sets up a harsh outcry, which consists of a single note, *pep pep*

Taken in Merced County
Photo by the Author

INCUBATING

THE "STILTS" FOLD UP NEARLY LIKE A JACKKNIFE

Taken near Los Banos *Photo by the Author*

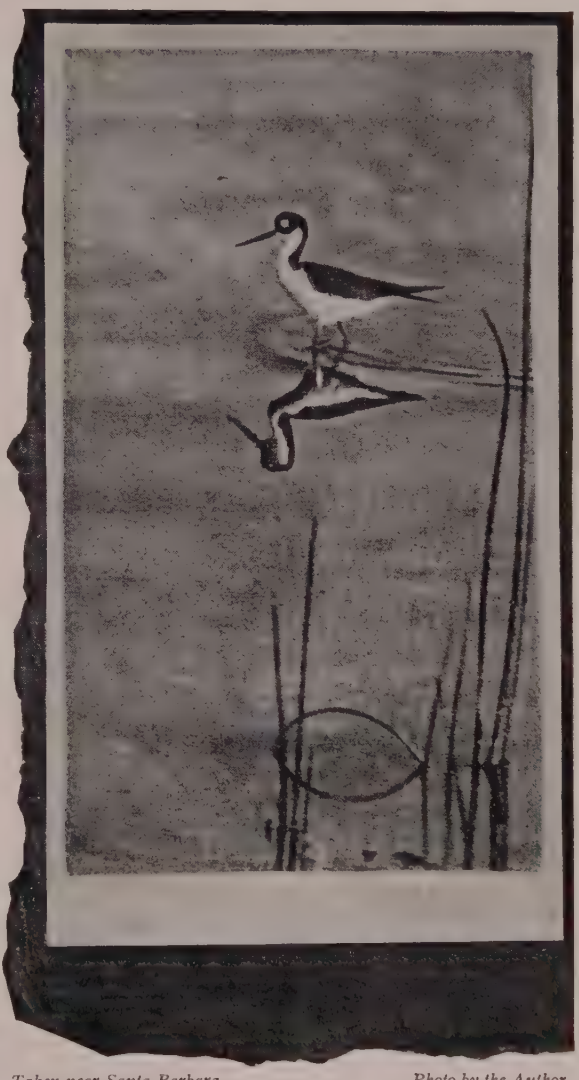
THE LONG LEGS MAKE AN EXCELLENT RUDDER

pep, or *krek, krek, krek*, incessantly repeated. The din is so great and so constant that, if obliged to work in the swamps all day, one's head fairly aches with the clamor before the day's end.

While all are shouting lustily, the birds whose nests are more immediately threatened are doing decoy stunts of several fascinating sorts. The favorite line of effort is the broken-leg act, in which the bird collapses suddenly, as though one of its little pipe-stem legs had snapped in two. The act is performed with such sincerity, even when the bird is standing in only an inch or so of water, that it never ceases to be amusing. Moreover, the trick is repeated diligently every few feet, so that it begins to look as though the bird had taken some fakir vow to prostrate itself every third or fourth step. The Avocet, now that one thinks of it, does the same thing; but it does it awkwardly or, as it were, cautiously, and so unconvincingly. It has manifestly copied from its more agile neighbor.

The second line of effort, most faithfully pursued, is wing-fluttering. In this, again, the Stilt is rather the mistress. It has perfected a trick of putting up one wing at a time and letting the wind towsle it about, as though it were really broken. Of course it also flutters both wings, and

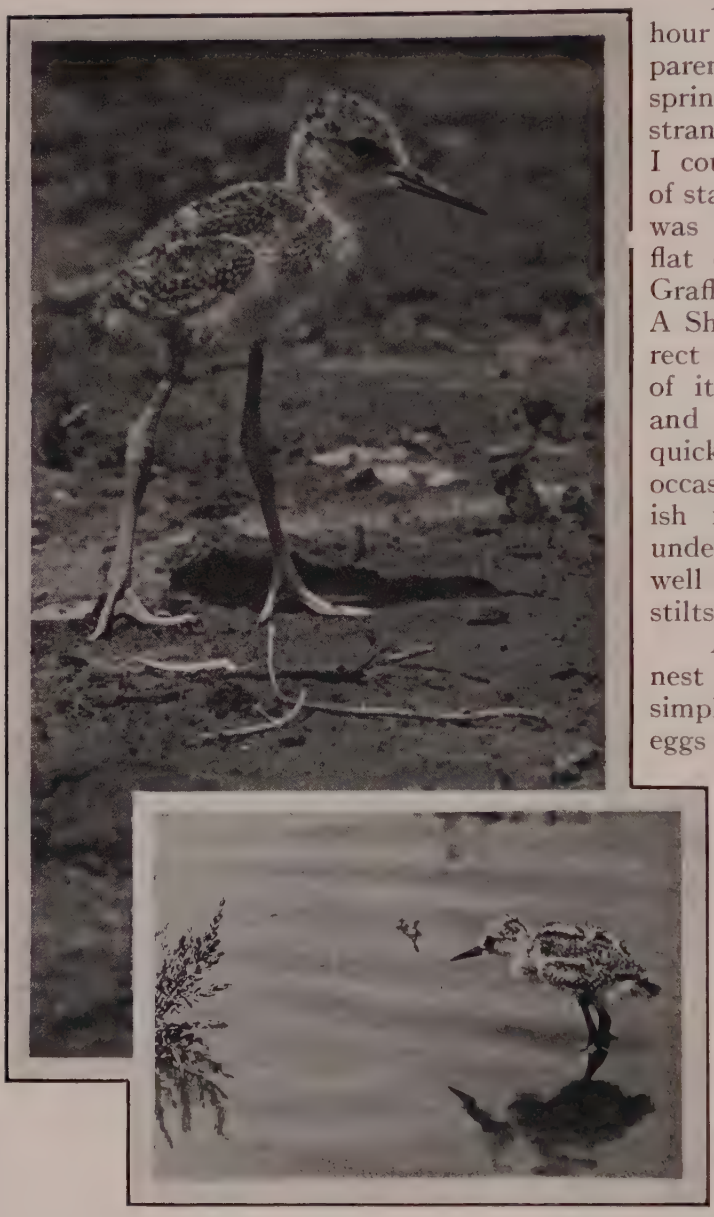
goes through other nondescript flopping and fluttering performances, such as are common to the family of Shore-birds. All is, these operations are carried on at an unseemly distance. The bird is timorous at best, and though demonstrative to a fault, it is the despair of the camerists. Even the wing evolutions, which deserve special notice, are seldom conducted within decent range. In the first extremity of anxiety a Stilt will sometimes charge up and flutter mid-air, with its legs helplessly and ostentatiously dangling, a pathetic proffer of its most useful members. For the rest, it is content to describe incessant noisy circles, or to make spectacular sky-climbs and high dives for the benefit, or despair, of the aliens. The long red legs of the birds make an excellent rudder, and they attempt stunts which, if not impossible to more modest birds, would nevertheless appear very tame in them. The dive, especially, is a startling performance, in which the bird descends like a stricken aeroplane, at an angle of seventy degrees.



Taken near Santa Barbara *Photo by the Author*

The importance of those oft-mentioned members, the stilts of the Stilt, is again emphasized by the appearance of the young bird. While a newly-hatched chick exhibits the familiar pattern of black and tawny which is common to the entire Laro-Limicoline group, its feet and legs have already undergone an extraordinary development. In fact, to the excited fancy the chick appears to be all feet. The infant can make shift to shuffle away from the nest and into cover within the hour, if need be, but he cannot negotiate his stilts

until several hours have elapsed after hatching; and he feels decidedly pale and tottery, like a young colt, until the day after.



Taken in Merced County *Photo by the Author*

A NEW PAIR OF STILTS

Not even in the supremest hour of need will the anxious parents come near their offspring in the presence of a stranger. In fact, the only way I could secure these portraits of standing birds, where a blind was impracticable, was to lie flat on the ground, with the Graflex, beside a hatching nest. A Shore-bird's fear bears a direct relation to the elevation of its object on the horizon, and a prostrate figure makes quicker friends. On such an occasion one may note the pinkish flush which suffuses the underparts of the male bird, as well as the extra length of his stilts.

As with the Avocet, the nest of the Stilt may be very simple or very elaborate. Many eggs are laid in mere hollows scratched in the dry earth, with a few twigs or bits of cow-dung to mark the site. Others occupy a substantial platform of dried grasses or felted water-plants. It is when the water rises that the birds rise to the occasion, and get busy with nest-building. Sedges, sticks, water-plants with clinging soil, anything movable, is seized and forced under the threatened eggs. Indeed, so

Taken near Los Banos *Photo by the Author*

RECENT ARRIVALS

Taken in Merced County *Photo by the Author*

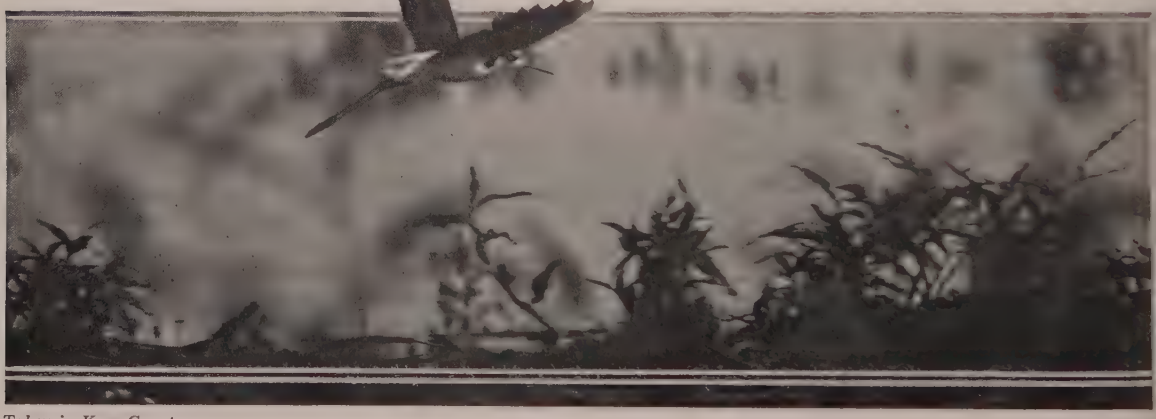
A FIVE-EGG SET

Taken in Merced County *Photo by the Author*

"PALE AND TOTTERY"

apprehensive is the bird of the growing necessity, that as often as she leaves the nest she will seize loose material and fling it over her shoulder for future use. The eggs themselves, protectively colored in bister and black, are mauled about and soiled in the mud; but the day is saved. I have seen a Stilt, painfully conscious no doubt, squatted on a truncated cone of vegetation eight inches in height and as broad across the top,—a veritable Noah's ark of safety.

One other danger the Stilts know right well, and that is the wandering hoof of careless cattle. In a certain field near Los Baños our attention was called to a group which occupied a small grass-covered island a little off the road. Half a dozen cattle stood about in wooden attitudes, while within three feet of one of them crouched a Stilt upon her nest. Beside her stood her valiant mate, shouting lustily and fluttering his wings frantically to keep off the bovines. The cattle did respect the birds' rights, too, for they sheered away from them as they left the island at our approach. Another animated group we saw at a distance in the same pasture. An excited female Stilt was standing on the rim of her nest and sparring with an inquisitive calf, while two of her courageous companions were endeavoring to dissuade a steer from further progress.



Taken in Kern County

THE SHOW IS OVER

Photo by Dickey

No. 234

Wilson's Snipe

A. O. U. No. 230. **Capella gallinago delicata** (Ord).

Synonyms.—American Snipe. Jack-snipe. "English" Snipe. Bogsucker.

Description.—*Adult:* Upperparts brownish black, freckled, mottled, barred, and streaked with ochraceous-buff and whitish; crown and back nearly pure black, the former divided by irregular buffy median line; the scapulars and inter-scapulars bordered by whitish or cream-buff, on outer margins only; wings fuscous, the edge including outer web of first primary, white; the greater coverts, secondaries, and sometimes inner primaries narrowly tipped with white; a dark line from eye to bill; throat whitish; sides of head and neck and breast ochraceous-buff, finely spotted and streaked, or indistinctly barred with blackish; belly white, the axillars, sides, and flanks strongly barred,—blackish and white; both tail-coverts and exposed tip of tail strongly ochraceous-buff, or rufous, finely barred with black; tail-feathers black basally, some of the lateral ones white or white-tipped. Bill and feet greenish gray, the former tipped with dusky. Length 254-304.8 (10.00-12.00); wing 127 (5.00); tail 61 (2.40); bill 63.5 (2.50); tarsus 31.8 (1.25). The female averages smaller than the male.

Recognition Marks.—Robin size; general mottled and streaked appearance; long bill used as mud-probe; marsh-skulking habits, and *jack, jack* notes on rising.

Nesting.—*Nest:* A grass-lined hollow in tussock of grass in marsh. *Eggs:* 4, sharply pointed ovate; deep olive-buff, dark olive-buff, or, rarely, isabella color, spotted and blotched, chiefly about larger end, with brownish black, light brownish olive, and sepia (drab, if under shell). Av. size 38.1 x 27.9 (1.50 x 1.10); index 73.3. *Season:* May or June; one brood.

Range of *Capella gallinago.*—Northern Hemisphere.

Range of *C. g. delicata.*—North and Middle America and northern South America. Breeds from northern Alaska, northern Mackenzie, central Keewatin, and northern Ungava, south to southern California, southern Colorado, northern Iowa and New Jersey. Winters regularly from northern California, Arkansas, North Carolina, etc., south to Colombia, British Guiana, and Brazil; sparingly to Washington, Montana, Nova Scotia, etc. Accidental in Hawaii and Great Britain.

Distribution in California.—Common migrant practically throughout the State. Sparingly resident in winter in west-central and southern portions of State. Breeds sparingly in favored sections, but chiefly east of the Sierras. Southernmost recorded breeding station for the species, San Bernardino (Wall—several records).

Authorities.—**Newberry** (*Scolopax wilsonii*), Rep. Pac. R. R. Surv., vol. vi., 1857, p. 100; *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 23 (distr. and migr.); *McAtee*, U. S. Dept. Agric., Biol. Surv. Circular no. 79, 1911, pp. 1-9 (food); *Grinnell, Bryant, and Storer*, Game Birds Calif., 1918, p. 350 (desc., occurrence, habits, etc.); *Evermann*, Condor, vol. xxi., 1919, p. 121 (Lassen Co., desc. nest and eggs); *Wall*, Condor, vol. xxi., 1919, p. 207 (San Bernardino; breeding habits).

AS OFTEN as the word "snipe" is mentioned one thinks instantly of this recluse of the inland fens, for he is *the* Snipe of America. In universality of distribution, during migrations at least, he is exceeded by no

other Shore-bird, save, possibly, the Killdeer. Although having almost everything in common with the European Snipe, *Capella gallinago gallinago*, and something with the eastern Woodcock, *Philohela minor*, he is, so far as this country is concerned, *sui generis*. Without question, he is possessed in superabundant measure of that quality called character, which endears him alike to sportsmen, to the bird student, and to the expectant schoolboy prowling knee-deep in the pasture "slough." Jack is rather a disreputable looking fellow, a tatterdemalion, in fact, as he bursts out of his bog with an exultant cry of "*escape, escape,*" and flutters his rags in the wind. And as he pursues his devious way through the air, jerking hither and thither in most lawless fashion, the gunner could easily believe him an escaped jail-bird if the stripes of his garments only ran the other way.

The Wilson Snipe is a bird of the half-wooded swamps as well as of the open marsh, a frequenter of the grassy border stretches, or of the boggy margins of the "spring branch." In such a situation he lies pretty closely by day; but as dusk comes on, he bestirs himself and goes pattering about in the shallow water or over the weedy scum-strewn muck, thrusting his beak down rapidly into the ooze and extracting worms or succulent roots. If danger approaches, by day, the bird's first instinct is to crouch low. If the sky is clear, it is difficult to dislodge him, for the light blinds him in the air, and he knows that his ragged blacks and browns exactly match the criss-crossed vegetation and interlacing shadows of his present surroundings. If, however, the day be overcast and windy, the bird springs up quickly against the wind, shouts "*Jack, Jack,*" twice, pursues a bewildering zigzag until out of range, and then flies straight to some other feeding ground, or circles about and enters the old one from another quarter. This zigzag flight, which is the joy of the old gunners and the despair of the young, is really a wonderful exhibition of the self-protecting instinct. For we cannot fairly accuse the Snipe of not knowing his own mind, since, when once out of harm's way, his flight is direct and rapid and he drops into a bog like a shot. The trick must have been deliberately acquired. The cries of the first bird startled are sometimes a signal for all the others in a given swamp to rise and dodge about in the upper air, taking distant counsel whether to return or fly to pastures new. In either case the sport is off for that day, for the aerial caucus is a sign that the birds won't stand much fooling.

Of course the degree of timidity which the birds exhibit in any locality is simply a matter of the amount of persecution to which they have been recently subjected. Sometimes the entrance of a gunner into a field is the signal for the Snipe to flee the country. On the other hand, I once approached, in midwinter, a bird which I knew to be in perfect condition, and which stood quizzically in full survey until I got within five feet of

it, whereupon it calmly *swam* across a little brook rather than bother to fly from the harmless birdman.

All the members of the Snipe family proper, the *Scolopacidæ*, rank high as table birds, but the Wilson Snipe, with the Woodcock, are the most highly prized. Water animalculæ and many kinds of insects appear upon Jack's bill-of-fare, but subterranean worms are the mainstay. These are obtained in large measure by the direct probing of the bird, who is provided with a long beak, having a sensitive and partly flexible tip, controlled by a special set of muscles. In addition to this, however, it appears to make use of an ingenious device. While walking through a marsh, patches of mud are often found sprinkled with small round holes set close together. These are the work of snipe, and are called "borings," being made by the bird's thrusting its long bill into the mud as far as the forehead. As it walks over and around the holes, insects and worms crawl out of them and are captured. Much the same thing may be done in a garden by boring a quantity of holes with a small stick, and then rapping the ground with it smartly.

It is, however, neither as a viand nor a gourmand that some of us

Taken in Inyo County *Photo by the Author*

NEST AND EGGS OF WILSON SNIPE

Taken near Santa Barbara *Photo by the Author*

"JACK" AS THE GUNNER SEES HIM

prefer to think of the Jack-snipe, but rather as a member of society. For Jack is an ardent lover, a devoted husband, and a resourceful father; and Mrs. Jack, no less, is possessed of all the domestic virtues. Let me take the reader to Snipeville. Shall it be an open, sunny swamp in Owens Valley? The date is the 21st of May. The air is full of hooting males (say, three or four), a challenge for proper birdmen to heave to for the night. As we cast about for a possible camping site, my attention is arrested by a solicitous bird who is "yelping" from the ground. The notes are dissyllables, *pe chep' pe chep' pe chep'*, endlessly iterative, and uttered earnestly for minutes at a time. I can see the bird's mandibles playing rhythmically, and he sways his head slowly from side to side as he pipes. After two long rounds he takes to a leisure wing and so joins the merry company of cavorting hooters. In the language of Tam o' the Scoots, Junior: "Hoot, mon, but it was an awesome sicht to see the auld bird ootlined against the jaggedest Sierras, the while he winnowed the air with his pinions and quavered for the delectation of his lady love." She, poor dear, was enjoying a little refection of worms while her lord wailed and hurtled aloft. I saw her eating hard by, while the male bird quitted the earth. Food must have been very abundant in this particular bog, for though she prodded and gobbled most vigorously, the lady did not require to leave the space of a square foot in fifteen minutes' prodding.

But the hooters themselves demand early attention. Courtship is at its height, and these aviating Romeos are staging a flying circus. Each,

independent of his fellows, but in conscious rivalry with them, describes great free circles hundreds of feet in extent, and when a sufficient height has been attained, starts downward in a long glissade. Presently a weird pulsating sound emerges, gains power and focus, till the ear-drums feel the physical strain, and trails off again into silence: *hoo hoo* HOO HOO HOO *HOO HOO* HOO HOO *hoo hoo*. The effect produced by several contestants, each careening and charging about the open sky, is indescribably thrilling and spookish. Dr. Brewster thinks the sound can be heard a mile away; and I am willing to testify that it is the most eerie and penetrating sound which the American swamps offer.

Now, how is this uncanny sound produced? After closely studying many of these "song" flights under 8-power binoculars, I have come to the conclusion that the body of the sound is produced by the impact of air upon the sharp lateral feathers of the tail, held stiffly, while the pulsations of sound are produced by the wings. At least it is certain that the pulsations of sound are synchronous with the wing-beats. Moreover, the sound is never produced save when and as the tail is spread to the utmost, so that the two outer pairs of rectrices, which are much the shortest, are thrown forward at right angles to the axis of the body. The sound begins gradually, as while the tail is expanding, and closes with a smooth diminuendo as the tail is closing, and while the wings are sailing. Of course the effort is confined to a downward flight, and that at a rather moderate angle. When concluding a "song" cycle, the bird dives sharply to the ground with wings uplifted and motionless, and lights with an easy volplane. The hooting operation itself varies interminably in length from one to five seconds, at the pleasure of the performer. The pulsations, or wing beats, will run three or four to the second—probably nearer the latter figure.

There are, to be sure, "things doing" in the swamps with such carryings on overhead. But if all the oölogists in California were to turn to and hunt Jack-snipes' nests, their number would not be sensibly diminished through the years. Be the air above never so vocal, the finding of a nest is rarely more than a fortunate accident. The author's turn came one day in a foul swamp, much frequented by horses and cattle. I was wallowing through ooze of indescribable richness, and making fretful complaint of the fumes of marsh gas which welled up from the depths, when—*Psst!* A feathered bomb fairly exploded in my face as I approached a green tussock some two feet in diameter. This explosion ruse had doubtless availed to divert sundry "cow critters" on previous occasions of imminence, and had sent some of them off, belike, snorting and blowing; but the sordid human leaped forward, instead, to behold an authentic set of Jack-snipe's eggs, four in number, reposing on a carefully prepared bed

of twisted sedges. Seeing that I was not to be deflected by violence, the mistress of the nest flung herself upon a wet island hard by and indulged in a vigorous decoy pantomime. The appeal was not to hunger this time, nor was there any pretense of broken bones. In her extremity the bird offered herself—upon the altar of desire. The yonigic motif of the pose was unmistakable, and the elevated tail, spread fan-wise, exposed rufous tips of unsuspected brilliance, and formed a setting really seductive. But again the bird had guessed wrong. The birdman proved a veritable St. Jerome, and the lady, scorned, left in highest dudgeon.

Returning a little later, with a view to securing a snapshot of the rising bird, she flushed less noisily, while I was still twenty feet away. Another attempt put her off at thirty feet; and on a still later occasion she sneaked away, instead, and flushed at a considerable distance.

So long as intruders are near his swamp, Jack himself keeps a sharp lookout; and he does not hesitate to appropriate for the purpose any elevated station,—fence-post, hay-rick, or tree-top. On such occasions, when the bird is settled on a post, regarding you with sober down-turned beak and watchful eye, the effect is irresistibly comical. Still more diverting and very much rarer is the sight of two or three youngsters, with half-grown beaks, trooping after a mother who is all solicitude or brooding tenderness. And the pleasure which the youngsters evince when it comes their turn to thrust long skewers into the mud is diverting in the extreme. Theirs is a joy akin to the making of mud pies, and what child is there who would not just love to make mud pies for a living!

The history of the Jack-snipe as a breeding bird of California has been a succession of surprises. We all knew in a vague way that the birds bred in the swamps of the northeastern plateau country about Tahoe, and in the Modoc-Lassen region. But when Joseph Mailliard reported[1] the taking by A. van Rossem of a set of four eggs near Gorman, in extreme northwestern *Los Angeles County*, we gasped with surprise. The date was April 24, 1914, and the altitude 3800, approximately that of Tahoe. This was a hundred miles south of any previous breeding record for the species, and the record itself proves to be, most amusingly, the first specific *published* record for this State. Other records from northern localities promptly followed. I have myself found Jack-snipe breeding at Goose Lake, in Modoc County, and at Bishop and Lone Pine, in the Owens Valley. But Judge Edward Wall capped the climax by publishing in 1919[1] an account of the Wilson Snipe as a long-established breeding bird near San Bernardino. Judge Wall's experience reaches back to 1887; and, specifically, he found a nest containing three eggs in 1917 within two miles of the city of San Bernardino, and in 1918 a nest con-

[1] The Condor, Vol. XVI., Nov. 1914, p. 261. [2] The Condor, Vol. XXI., Sept. 1919, pp. 207-209.

taining young and an egg. In a State which is notable for distributional exceptions and faunistic anomalies, few records equal this one in interest. Think of it! A bird which breeds habitually to the limit of trees in British America, and which barely deigns to display itself in summer in favored localities in the *northern tier* of eastern states, nevertheless tarries in California in the heart of the orange belt, and miles south of the burning wastes of the Mojave Desert! Who shall deny that California is an empire, a microcosm, a world within herself!

Whether or no the Jack-snipe is actually on the increase in California, we cannot say, yet. The observance of the excellent laws now on the statute books is calculated to restore the species to something like its former status. But until lately the Jack-snipe has been the victim of terrific and incessant persecutions, especially in the "old" South. Bearing in mind that the Jack-snipe is in itself one of the most difficult birds to shoot, the following example of human skill—and rapacity—will show how unequal has become the contest between bird and brute. The case is cited by Wells W. Cooke:[1] "How they (the Wilson Snipe) abounded formerly and how they were slaughtered by southern gunners is forcibly shown by the record of a single hunter in Louisiana, who, during the twenty years from 1867 to 1887 killed 69,087 birds, an average of 3,500 snipe a winter. In 1870 about 100 snipe were killed by this man for each day he hunted. The maximum was reached in 1875, with 150 birds a day; this fell to 100 in 1880, and to 80 in 1887. Individual days far exceeded these average figures. The highest score for seven consecutive shooting days was reached in 1877, when, on December 8th, 270 snipe were killed; December 10th, 255; December 11th, 366; December 13th, 271; December 15th, 286; December 17th, 233; and December 19th, 262—an average of 278 a day and a total of 1,943 birds in seven days' shooting. The bag on December 11th—366 snipe—is supposed to be the world's record for slaughter by one man in one day." There are doubtfully 366 Wilson Snipe *resident* in California at the present time and without question there are not as many breeding birds within the limits of the United States as this one Caligula has killed.

No. 235

Long-billed Dowitcher

A. O. U. No. 232. **Limnodromus griseus scolopaceus** (Say).

Synonyms.—Western Dowitcher. Western Red-breasted Snipe. Red-bellied Snipe. Brown Snipe (spring). Gray Snipe (fall).

[1] "Our Shore-birds and their Future" by Wells W. Cooke, Yearbook Dept. of Agriculture for 1914, p. 279.

The Long-billed Dowitcher

Description.—*Adult in summer:* Upperparts black, finely mottled and streaked with pale cinnamon-rufous, and with some white; rump and upper tail-coverts white, finely and heavily marked with broadly crescentic, blackish spots, and sometimes tinged with ochraceous; tail barred with black and white, or the central feathers with black and ochraceous; lesser wing-coverts light grayish brown; primaries dusky; the greater wing-coverts and secondaries varied by white margining, shaft-marks and tips; a chain of dark specks from bill to eye; belly whitish; remaining underparts rich cinnamon, finely but not heavily speckled on sides of head and neck, and across breast with blackish; thickly barred with the same on sides and flanks; axillars and lining of wings white, striped and barred, or with V-shaped markings of dusky; bill and legs greenish black. *Adult in winter:* Cinnamon-color and ochraceous entirely wanting; upperparts, neck all around, and breast, broadly, grayish brown, well blended, but the feathers with darker centers or shaft-marks; belly more broadly white; black-and-white barring of tail-coverts as before, but dusky bars of axillars, sides, etc., duller—grayish. Length 279.4-317.5 (11.00-12.50); wing 145.3 (5.72); tail 55.9 (2.20); bill 69.1 (2.72); tarsus 38.9 (1.53). Females average larger than males.

Recognition Marks.—Robin size; pale cinnamon predominant above and rich cinnamon below in summer; fine mottling of back in either plumage; long bill; mud-probing habits; closely gregarious and non-secretive, as contrasted with *Capella gallinago.* The lengthened bill of this species is sufficient to distinguish it from *Canutus canutus,* with which it offers a rough parallelism in color changes.

Nesting.—Does not breed in California. *Nest:* A hollow in grassy hummock or sphagnum, scantily lined, or not, with bits of grass. *Eggs:* 4; pointed ovate; olive-buff or deep olive-buff, well spotted with brownish black, and with under-shell markings of deep brownish drab. Av. size 41.9 x 27.9 (1.65 x 1.10). *Season:* June; one brood.

Range of *Limnodromus griseus.*—North and South America. Breeds on the mainland in the middle high latitudes south to Yukon mouth; and winters from the southern borders of the United States south to Brazil.

Range of *L. g. scolopaceus.*—Western North America, and, perhaps, northeastern Siberia. Breeds from northwestern Mackenzie southwest to the Yukon delta. Winters from the Gulf States south to South America.

Authorities.—Gambel (*Macrorhamphus griseus*), Jour. Acad. Nat. Sci. Phila., ser. 2, 1, 1849, p. 224 (along the coast); *Howe,* Auk, vol. xviii., 1901, p. 161, map (migr., meas., plumage, etc.); *Bowles and Howell,* Condor, vol. xiv., 1912, p. 8 (Santa Barbara; migr. dates).

THE DOWITCHER is a sort of unsophisticated country cousin of the Wilson Snipe. No doubt his flesh is just as good to eat, also, but his manners are so unwary that his pursuit has, fortunately, never been rated good sport. Dowitchers, indeed, are such friendly, sociable chaps that I, for one, hope their names will never be removed from the protected list. In lieu of a shocking record of slaughter, such as we had to contemplate in the account preceding, I respectfully submit herewith a rather liberal gallery of portraits, record shots some of them, which in every instance left the birds unharmed and fully reassured.

Viewed simply as sport, the author can recommend the photographic

pursuit of the Shore-birds as among the most thrilling of human pastimes. Given a "reflecting" camera and a lofty disregard for personal appearance, one may have no end of fun—unforeseen difficulties, breathless suspense, sudden disappointments, increasing facility of approach, stupendous moments of opportunity, brilliant achievements—these are on the daily program of the bird photographer. And the trophies secured! They cause no one a pang, not even the bird; and are they not a joy forever?

My most regal hours with the Shore-birds have been spent on the upper reaches of the tidal lagoons at Sandyland, near Santa Barbara.

Taken near Santa Barbara *Photo by the Author*

THE NOONING

If the tide is out, the flats are fairly a-crawl and a-clatter with Shore-birds of six or seven varieties,—Western Sandpipers, Least Sandpipers, Baird's perhaps, Semipalmated Plovers, Killdeers (worse luck!), Wilson Phalaropes, a Willet maybe, and most certainly a scattering company of Long-billed Dowitchers. To approach these birds in the open one must move always with extreme deliberation and get as low upon the horizon as possible. I go to it barefoot and hump over the camera until I look like some amiable tortoise. Plowing along knee-deep in muck in such fashion involves some little dexterity, and it is very tiring. The exertion is not unlike that required by a slack-wire performer, for the foot penetrates the black depths in such irregular and unpredictable fashion, that one must constantly strain to maintain a reasonable balance. Now and then one encounters a soft seam, the filling of an ancient mud-

crack, and goes down so irresistibly that dignity is quite forgotten, and the outraged birds flee as from a scare-crow with suddenly brandished arms. Quietness, too, is *de rigueur*, and the author quite prides himself, now, upon being able to withdraw an Ethiopian foot from the depths, all silently, instead of with a sound like elephantine osculation.

Meanwhile, the sights visible on the plates are all of "Rewards and Fairies." Tiny "Peeps" are pattering over the glistening surface of the mud and gladdening the ear with Puckish chatterings. Their little bodies and roguish glances, displayed at minimum range, challenge another shot.

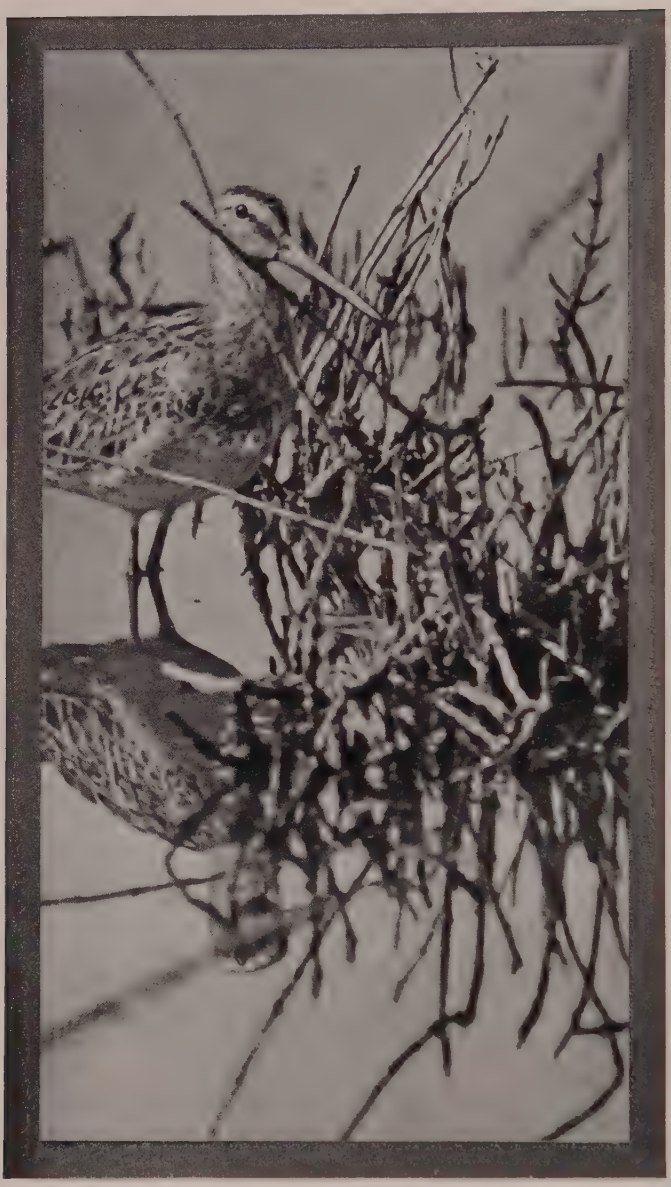
(Upper) Taken in Monterey County
(Lower) Taken near Santa Barbara
Photos by the Author

Taken near Santa Barbara AT HIGH TIDE *Photo by the Author*

LONG-BILLED DOWITCHERS ON PROTECTED WATER

even though the cabinets at home be already groaning with Peep negatives. Killdeers in the offing are shouting their imprecations and warnings, for nothing so delights the Killdeer's heart as to stampede the small fry in the face of pretended danger, and so be looked up to as a leader and a savior. But among those who wait and heed him not, the gentle Dowitcher is preëminent. He is very much occupied just now in jabbing holes in the soft muck. I had the curiosity one day to count the number of jabs made per minute: one bird delivered seventy-five, and another a hundred. This count included the minor thrusting motions made in each hole, as well as new prospects started. But the minute, as reckoned, was elapsed time, and included, besides the hundred thrusts, all moments spent in devouring prey and in pausing to take new bearings. Another bird drilled thirty new holes each minute.

When more closely pressed, the Dowitcher pauses and gravely considers, with motionless beak. He remarks, *Quit up* to a fellow, and scuttles away a foot or so, pausing again, or resuming busily. If driven to flight, the Dowitchers close ranks instantly and move off in unison like Sandpipers, now wheeling sharply and flashing white underparts, now tacking so that their brown backs are scarcely visible against the dun wastes of salicornia. While never a noisy bird, there are always a few in a flock to make mellow comment or protest, *clip r teeoo* or *cleeu koo, koo*, unexpectedly Tattler-like.



Taken in Monterey County *Photo by the Author*

THE AMBUSCADE

When the tide is high and mucking is over, our Dowitcher friends stand knee-deep in the warm shallows, tuck heads under wings and indulge a dreamless sleep, the envy of all neurasthenic Tattlers and insomniac Killdeers.

Once, at Elkhorn, on Oct. 11, 1913, just before the opening of the duck season had set the marshes aroar, I came upon a solitary Dowitcher feeding in a flooded meadow. Long-billed Dowitchers were an ancient target by that time, but this demure Barkis proved so unco willin' that I burnt up ten plates on him, always at a diminishing distance, and the last two or three at minimum range. Once or twice the bird flitted a little distance, but oftener it fed as it retreated, and it allowed itself to be "cornered" repeatedly rather than be at the trouble of flying. Some of the poses were dreams! The bird could not have been more obliging if he had let me clamp the back of his head in the old-fashioned photographer's tongs. But what is the use of printed exclamations? There stands the bird, a conscious model, perfect in every detail, and so life-like that the feeble pencil of the note-taker is abashed. Words are mere padding for pictures nowadays!

Long-billed Dowitchers are well distributed through California, especially coastwise, during the migrations. A few linger to winter both in southern California and in the central valley. A straggler may now and then be seen in summer time, but there is no suspicion that they breed with us.

The typical breeding range is Alaska, and Nelson found them mating at the mouth of the Yukon about June 1st. "Two or three males start in pursuit of a female and away they go twisting and turning, here and there, over marsh and stream, with marvelous swiftness and dexterity. At short distances a male checks his flight for a moment to utter a strident *peét u weét; wee-too, wée-too;* then on he goes full tilt again. After they are mated, or when a solitary male pays his devotions, they rise 15 or 20 yards from the ground, where, hovering upon quivering wings, the birds pour forth a lisping but energetic and frequent musical song, which can be very imperfectly expressed by the syllables *peét-peet; pée-ter-wee-too; wée-too; pée-ter-wée-too; pée-ter-wée-too; wée-too; wee-too.* This is the complete song, but frequently only fragments are sung, as when the bird is in pursuit of the female."[1]

The eggs, four in number, and closely resembling those of the Wilson Snipe, are placed in a shallow depression formed by the bird's body in the soft moss which covers the ground in that region.

[1] E. W. Nelson: "Rep. of Natl. Hist. Colls. made in Alaska," 1881, p. 101.

Taken near Santa Barbara *Photo by the Author*

A PROBING INQUIRY

No. 236

Knot

A. O. U. No. 234. **Canutus canutus** (Linnæus).

Synonyms.—Robin Snipe. Gray Snipe.;

Description.—*Adult in summer:* Upperparts light gray, streaked centrally with black (narrowly on crown and nape, broadly on back and scapulars), and varied irregularly with some ochraceous buff; primary coverts and primaries blackish, the latter with white shafts; upper tail-coverts with subterminal U- or V-shaped markings of dusky; tail uniform grayish brown; underparts in general pale cinnamon-rufous; cheeks and superciliary region washed with same, and dusky-streaked: paler or white on belly; crissum, under tail-coverts, thighs, lining of wings, and sides white,—the last two and sides of breast more or less dusky-barred. Bill and feet greenish black. *Adult in winter:* Above plain ashy gray; upper tail-coverts and tail as before; underparts white; the sides of neck, fore-neck, and chest with faint dusky streaks, or irregular bars, and the sides similarly barred. *Immature:* Above, ashy gray, mottled with dusky on crown; with whitish edging and narrow submarginal dusky on feathers of back and scapular region; the fore-breast flecked or streaked, but not barred, with dusky; otherwise much as in winter plumage adult. Length 254-279.4 (10.00-11.00); wing 165.1 (6.50); tail 58.7 (2.31); bill 34 (1.34); tarsus 31.2 (1.23).

Recognition Marks.—Robin size; called "Robin Snipe" from the cinnamon-rufous of breast (in summer); the largest of the *Tringæ;* found coastwise.

Nesting.—In highest Arctic latitudes. *Eggs* (As described by Mr. Ludlow Griscom from set taken by Elmer Ekblaw, of the American Museum of Natural History Expedition to Crocker Land): 4; white as to ground, strongly or weakly washed with olive-green, splotched and spotted thickly with olive-brown, chiefly at larger end. Av. size 46.6 x 30.4 (1.83 x 1.20).

General Range.—Circumpolar; in migrations south, chiefly along the sea coasts to extremities of the continents, New Zealand, Australia, etc. Not commonly found in the interior of North America nor along the Pacific Coast.

Occurrence in California.—Of irregular occurrence during migrations, coastwise. Sporadically common.

Authorities.—Townsend (*Tringa canutus*), Proc. U. S. Nat. Mus., vol. x., 1887, p. 198 (Humboldt Bay); *Bowles and Howell,* Condor, vol. xiv., 1912, p. 8 (Santa Barbara; migr. dates); *Grinnell, Bryant, and Storer,* Game Birds Calif., 1918, p. 363 (desc. occurrence, habits, etc.).

"WHEN King Canute, or Knut, had dined on a dish of strange coast-faring birds, he was gracious enough to express to his blushing chef the royal appreciation of the flavor. Whereupon the eager courtiers dubbed the waders Knuts, or Knots, and so they have come down to us—at least so Pennant says; and Linnæus, not over-serious (he was a busy man with all of Adam's task to finish) accepted the tradition in '*Tringa canutus.*' It is certainly fitting that these birds of the farthest north should bear the name of some hardy Norseman.

"Knots have swept down the roaring coasts for centuries, but the mystery was, Where do they come from? Sir So-and-so was charged to bring back with him from the algid North, along with sundry information about the tides, and temperatures, and short cuts to China, a set of Knot's eggs; but he came back empty-handed. Grizzled sea-captains said, 'Lo, here! lo, there they breed'; but the eggs were not forthcoming. Finally, it was left for our own Lieutenant Greely to bring back the first authentic specimen, one taken near Fort Conger, lat. 81° 44′, North, together with the parent bird. Verily, if we were Knots, even baby Knots, we might stand some show of reaching the North Pole" (The Birds of Ohio).

The Robin Snipes are found chiefly coastwise, and they are, or were, very much more common on the Atlantic seaboard than along our shores. But there is a favored spot in Alameda County, a part of the San Francisco Bay shore, which appears to have been a major station for these birds from time immemorial. Here they have been seen by the score, perhaps hundreds, during both the spring and fall migrations; whereas, save for Fannin's brief comment,[1] "Abundant during migrations," our records of this bird's occurrence on the Pacific Coast seem to be most meager, and those concerned with chance individuals or very small companies. There are half a dozen records for the coast of California; and I have noted the bird twice at Santa Barbara: once on August 29th, 1911, two immature birds; and on May 1st, 1913, a single individual in winter (or immature) plumage.

Knots move about, now singly, or in small flocks, and may be found on the mud flats as well as on the sandy beaches. The plain dark coloration of an adult does not attract attention at a distance, but it is often associated in feeding and in flight with more brightly colored birds, notably the Turnstone (*Arenaria interpres*). It is, moreover, one of the least suspicious of the larger Shore-birds, and decoys readily to any whistle of its genus, even though the gunner be standing in plain sight. The bird feeds chiefly upon aquatic insects, crustaceans, and small bivalves. These it secures chiefly from the wake of the receding wave, but it swims also with ease, and does not fear a little buffeting on the part of the racing "hurry-back." At high tide it cheerfully retires to the marshes and probes for its food in the more open places.

The record of human dealings with this gentle, trustful Northlander is an altogether sad one. According to Mr. George H. Mackey, our highest authority on the species, Knots used to rise from the bay shores of Massachusetts "in clouds." Twenty-five thousand was a sober estimate of the number to be seen at a given station in one season in the middle of

[1] "Catalogue of British Columbia Birds," Victoria, 1904, p. 21.

the last century. In those days powder and shot were deemed too precious to waste upon them (they were worth ten cents a dozen in the Boston market); so the more economical system of "fire lighting" was adopted. Dazzled by the light of a lantern or torch held low, the birds were seized by hand by an assistant who crept about on hands and knees, and they were bitten through the neck to insure a quiet death, gathered into sacks or barrels, and shipped to market. Writing in 1893, Mr. Mackey had to say:[1] "For twelve years past the number of Knots in the vicinity of Tuckernuck Island (a favorite resort of early days) has not averaged more than fifty birds." Is it any marvel, then, that our Federal authorities have placed this bird upon the protected list and are striving to nurse the embers of a vanishing race back into life?

No. 237

Sharp-tailed Sandpiper

A. O. U. No. 238. **Pisobia acuminata** (Horsfield).

Description.—*Adults* (in autumn): Above black, much restrained by ochraceous edgings; pileum tawny in excess of black; cervical region, shading on sides of neck, warm buff; edgings of tertials ochraceous buff; the lengthened scapulars sharply edged with white on outer web; tail blackish, lightly margined with ochraceous, wedge-shaped, graduated, each feather tapering sharply; underparts white, with warm buffy suffusion on throat and across breast; this area lightly speckled with obscure dusky, more heavily on sides of neck and breast; sides of head white, speckled with dusky; a broad superciliary white; flanks narrowly streaked with dusky. "Bill changing from greenish yellow basally to blackish toward tip; feet greenish yellow." Adults in breeding plumage are said to be more rufescent, with jugulum heavily spotted or barred with dusky. Length of adult male: 203.2-228.6 (8.00-9.00); wing 132 (5.20); tail 58 (2.28); bill 26 (1.02). Females average smaller.

Recognition Marks.—Towhee size; the strength of the buffy brown element above and the strong buffy suffusion of breast most distinctive; comparative *absence* of streaks on chest in winter plumage distinguishes from *P. maculata*.

Nesting.—Scarcely known; probably much as in next species. Does not breed in California.

General Range.—Breeds in northeastern Siberia; south in winter, chiefly along eastern Pacific shores and islands, to Australia and New Zealand; also in autumn migrations, western Alaska, and occasionally south to British Columbia. Casual in Washington, California, the Hawaiian Islands, and England.

Occurrence in California.—One record,—San Diego, Sept. 16, 1921, by A. W. Anthony.

Authorities.—Anthony (*Pisobia aurita*), Auk, vol. xxxix., 1922, p. 106 (San Diego, Sept. 16, 1921, 1 spec.); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, p. 35 (distr. and migr.).

[1] The 'Auk," Vol. X., Jan. 1893, p. 28.

WE HAVE ALL chuckled speculatively over the linguistic exercises laid out for the Tchuktchis, or the Tschuktschis, or, more obviously, the Chuckcheese; but apart from the difficulty of stuttering "I love you" in Tchuktchese, we'll warrant that life goes on right merrily where the Arctic Circle cuts through Sandpiperland, alias the Tchuktchi Peninsula. Six weeks suffice for the rearing of a family in a land which, in summer, enjoys the benefit of an unsetting sun; and so, for the rest of the year, these happy-hearted children of the North are free to wander—over a hundred degrees of longitude, it is said. Although born Asiatics, the Sharp-tailed Sandpipers, following the natural trend of the land-masses, sweep the coasts of western Alaska in the autumnal migrations, preparing, no doubt, to "hop off" somewhere in the Aleutian Islands. A few birds, novices, for they are always young-of-the-year, hug the American shore instead and straggle down the northwestern coast. Four birds were taken (not preserved) by J. M. Edson at Bellingham, Washington, in September, 1892. And now Mr. Anthony, on lookout at that stronghold of opportunity, San Diego, has clinched the United States record by a specimen, a young male, secured on the 16th of September, 1921. Mr. Anthony on the same day glimpsed another flock of eight or ten birds which he surmised were of this species.

No. 238

Pectoral Sandpiper

A. O. U. No. 239. **Pisobia maculata** (Vieillot).

Synonyms.—Grass Snipe. Krieker. Jack Snipe.

Description.—*Adult:* Above, ground-color blackish, everywhere heavily margined, and thus finely streaked, with ochraceous-buff, ochraceous, or rusty, and with some grayish or whitish edging on the larger feathers; darker on crown, where streaked with rusty only; wing-quills dusky, the first primary only with shaft white above; rump and upper tail-coverts black, delicately tipped with rusty; tail sharply pointed, the central feathers longest,—blackish centrally, brownish gray laterally, with ochraceous or white edging; below, sides of head and neck, fore-neck and breast finely, sharply, and heavily streaked with dusky on a dull white or buffy ground; throat and remaining underparts white. Bill and feet greenish dusky. *Coloring in winter* perhaps more blended. There seems to be no constant difference between summer and winter plumages,—conflicting authorities to the contrary. *Immature:* A little brighter-colored above, with sharper markings and more rusty, and with considerable white edging on larger feathers of back; the breast more deeply buffy, and the streaks, if possible, more numerous. Length of adult males 203.2-241.3 (8.00-9.50); wing 137.2 (5.40); tail 67.8 (2.67); bill 29.7 (1.17); tarsus 27.8 (1.10). Females are much smaller.

Recognition Marks.—Towhee size, but appearing larger; fine streaking of fore-neck and breast on heavy ground, contrasting with pure white of throat and belly,

distinctive for size. Requires careful distinction from succeeding species, which is one-third smaller.

Nesting.—Does not breed in California. *Nest:* A depression in the ground or tundra. *Eggs:* 4; pale olive-buff to deep olive-buff, heavily marked, spotted, and blotched with brownish black and sepia, the darker markings often heavily shadowed by sepia or light brownish olive. Av. size 38.1 x 27.2 (1.50 x 1.07); index 71.3. *Season:* June; one brood.

General Range.—Northeastern Siberia, the whole of North America and the West Indies and the greater part of South America. Breeds in the Arctic regions. Of frequent occurrence in Europe.

Occurrence in California.—Not common spring and fall migrant coastwise.

Authorities.—Cooper (*Actodromas maculata*), Proc. Calif. Acad. Sci., vol. iv., 1868, p. 8 (San Francisco Bay); *Bowles and Howell*, Condor, vol. xiv., 1912, p. 8 (Santa Barbara; migr. dates).

Taken in Monterey County *Photo by the Author*

A LITTLE DOUBTFUL

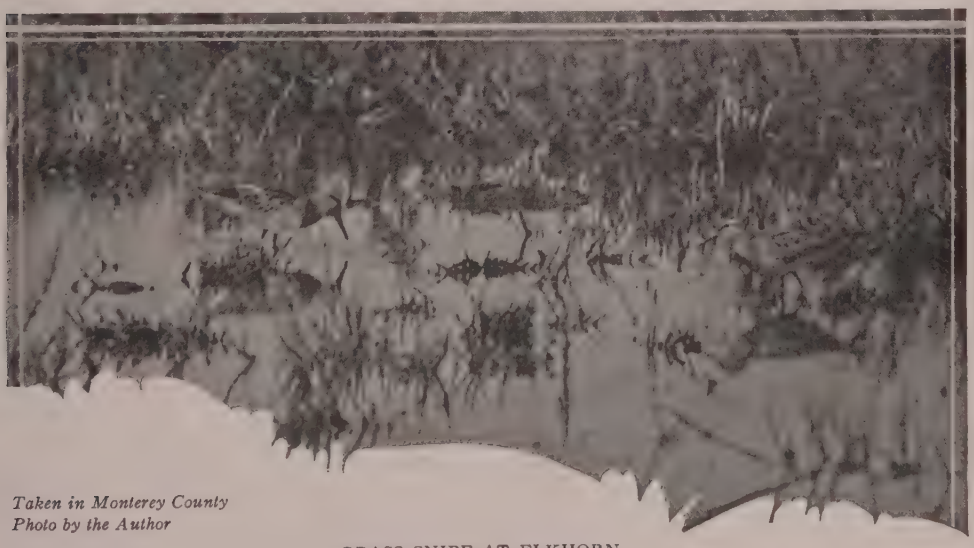
THE AUTHORITIES used to tell us that the Pectoral Sandpiper was "rare" or "casual" anywhere along the Pacific Coast. Well, perhaps it was, or perhaps it was merely overlooked. Recent records, at least, have tended to destroy the earlier traditions of a bird so rare that the layman might never hope to see it. The third record for the State of California was made by Bradford Torrey[1] who saw birds at Santa Barbara from September 17 to 23, 1909. Mr. J. Hooper Bowles' dates for 1910 at the same station were April 14th and September 8th; and for 1911 (with Mr. A. B. Howell), Aug. 18 to Sept. 20. The species was not detected in 1912, but I found it again on Aug. 20, 1913, in the Santa Barbara Estero; and again on the 11th of October at Elkhorn, in Monterey County, on the grounds of the Empire Gun Club.

[1] "Condor," Vol. XII., Jan. 1910, pp. 44, 45.

At the last-named station a flock of six Pectorals, feeding in the flooded salicornia beds, afforded a very pleasing sight. There would have been handsome photographic records, too, if it had not been for the wicked lies the Killdeers told. As it was, I played tag with these *Tringæ* for the best part of two hours and found them far wilder at the end of the "sitting" than at the beginning. The Pectorals often consorted with the Leasts (*Pisobia minutilla*), and under the spur of the Killdeer bulletins (published every five minutes by a feathered Ananias whose neck I should like to have wrung), these usually trusting little fowls were soon wrought up to a state of nervous tension exceeding the Killdeer's own.

Left to themselves, the Pectorals moved about with quiet grace and assurance, and without that waste motion which is so characteristic of the Solitary Sandpiper (*Tringa solitaria cinnamomea*) or the Yellow-legs (*Neoglottis flavipes*), to both of which, in character, they bear a superficial resemblance. The name "Grass Snipe" seemed fitting, for they often alighted in the center of a thick cluster of grass-stems or of salicornia in preference to open water, and they sometimes took refuge in such cover when gently pressed, instead of taking to wing. The birds were always silent, and if the camerist was anywhere in the vicinity, feeding was either suspended outright or carried on furtively. Sometimes a bird would stand motionless, peering over a grass patch, for ten minutes at a stretch.

Much better opportunities of studying these birds are afforded in the Mississippi Valley, during migrations. When startled, a flock of, say, fifty of these Sandpipers moves off as one bird, wheeling and turning at precisely the same moment, and presenting in the early morning a



Taken in Monterey County
Photo by the Author

GRASS SNIPE AT ELKHORN

Taken in Santa Ba
Photo by the A

A DINNER GUEST

pleasing alternation of flashing white, when the underparts are exposed, and somber gray, when the backs appear. While on the wing, the birds keep up a cross-fire of peculiar, wild, creaking notes; but upon alighting, they scatter widely in search of food and are mainly silent. They both glean and probe on land, or wade about busily in the grassy plashes. At the approach of danger the waders will often crouch low upon the ground in the hope of escaping observation. In the autumn, when each individual shifts for itself, the bird is said to lie well to a dog; and upon being flushed it moves off with a rapid zigzag flight much admired by the knights of the reeking tube.

Very interesting accounts of the breeding habits of these birds in their Alaskan home reach us through the pen of Mr. E. W. Nelson. According to this careful observer, the males are able to distend the loosened skin of the breast, inflating it, together with the esophagus, with air until it becomes nearly as large as the rest of the body. With these absurd appendages they run up and down before the females, or essay strange sallies in the air. While engaged in these attempts to win attention, they utter notes which are hollow and resonant, but at the same time liquid and musical, and may be represented by a repetition of the syllables *too-u*, *too′-u*, *too′-u*.

BAIRD'S SANDPIPER

No. 239

Baird's Sandpiper

A. O. U. No. 241. **Pisobia bairdi** (Coues).

Description.—*Adult in summer:* Upperparts fuscous, with considerable edging of buffy and light brownish gray,—the buff mostly in lateral striping on top of head and hind-neck, where predominant, and as terminal edging on back, etc.; some whitish edging on coverts, secondaries and inner quills, but no strong shades or contrasts anywhere; upper tail-coverts and tail dark fuscous, the former tipped with buff, and the latter edged with whitish, the outer feathers becoming much lighter; forehead and supraloral streaks pale buffy or whitish; throat white; the sides of the head, neck and breast with a heavy buffy suffusion, lightly and finely spotted and streaked with brownish dusky; remaining underparts white. Bill and legs black. *In winter* the shades of the upperparts are a little more blended. *Immature:* Similar to adult, but buffy suffusion of head, neck and breast more pronounced; the feathers of back

and scapulars rounded, with conspicuous, white terminal edging; the streaking of breast, etc., less distinct. Length (av. of 8 Alaskan specimens): 192 (7.56); wing 119.3 (4.70); tail 50.3 (1.98); bill 21.2 (.83); tarsus 22.7 (.89).

Recognition Marks.—Sparrow size, but appearing larger; about the size of a Spotted Sandpiper; dull fuscous and buffy coloration of upperparts; buffy breast streaked with fuscous; upper tail-coverts *not* white. To the superficial glance a smaller counterpart of *P. maculata;* streaking of chest a little less sharp; paler, less rufescent, above.

Nesting.—Does not breed in California. *Nest:* A slight hollow on dry tundra, or sometimes partly hidden in overshadowing vegetation. *Eggs:* 3 or 4; ovate, pointed; deep olive-buff, heavily and sometimes finely spotted with brownish black or sepia. Av. size 32 x 21.6 (1.26 x .85); index 67.4. *Season:* June; one brood.

General Range.—Breeds along Arctic Coast of America from Point Barrow to Keewatin. Migrates to South America (as far as Chile) by way of Mexico. In the United States passes chiefly between the Rocky Mountains and the Mississippi River, but also occurs irregularly upon both coasts and at scattered interior points.

Occurrence in California.—Spring and fall migrant coastwise: of regular occurrence at Santa Barbara, but apparently less observed elsewhere. One record from the interior: Fish Springs (Imperial County) April 28, 1917.

Authorities.—Sharpe (*Heteropygia bairdi*), Cat. Birds Brit. Mus., vol. xxiv., 1896, p. 570 (three spec. listed from "California"); *Bowles and Howell*, Condor, vol. xiv., 1912, p. 8 (Santa Barbara; migr. dates); *Wyman*, Condor, vol. xxi., 1919, p. 172 (Los Angeles Co.).

"ONE little sandpiper and I." It had been a tedious and profitless day at Sandyland. Birds were scarce and ill-behaved, and the Graflex had become very heavy. The beach dragged along in a birdless monotony and the waves snickered and hissed upon the sloping sands in mocking irony. There was nothing for it but to give it up as a bad job and hike along barefoot to the patient, homebound automobile. But all at once a Baird Sandpiper came winging down the wind, saw the birdman, hove to, and settled amiably on the beach, some forty feet beyond. I am so manifestly the decoy bird that I determine to turn the piper's curiosity to account. The bird is wary at first, but by patient persistence the photographer succeeds in gaining a point directly opposite, up the same slope, and not over thirty feet away. The bird prefers to feed just below the edge of the highest wave-wash, and is especially careful to inspect the light row of freshly stranded kelp. It has a dislike of the wetter sand, and as often as the wave itself comes too close, the bird either takes to wing with a startled cry or else scampers up to the high sands. As it feeds it follows the sinuosities of the wave-edge, and I endeavor to parallel its course, with the camera ever trained. Gradually the distance narrows,

"As up and down the beach we flit
One little sandpiper and I,"

until twenty feet, and then fifteen, becomes the permissible range. The bird is perfectly aware of my presence, and keeps a watchful eye in my direction. Often it pauses to study my conduct—most exemplary, I swear—and several times it has resented my too ardent wooing either by flitting to a little remove or else by endeavoring to double on its tracks. It could as easily desert the scene outright, but it seems held by some subtle sense of companionship, or by some feeling of safety in this presence. "This great creature with the black box in his arms is, no doubt, like myself, a migrating bug-hunter, pausing momentarily on the shores of time."

Of course I was working my special graft all this while. For the last two plates I swung around heedless of the engulfing wave, and took the seaward aspect of my little protegè. This also seemed as it should be—to the long of leg belong the deeper prizes—and the piper clung to its chosen line of research, quite undismayed. The birdman, meanwhile, was photographing *down* the sun, a rare privilege on this south-sloping shore.

The marvel of it all stirs one to admiration, and the confidence displayed touches a chivalrous chord in the heart.

> "Stanch friends are we, well tried and strong,
> One little sandpiper and I."

"You have won my heart, little piper; and I'll tell the governor that you

Taken near Santa Barbara *Photo by the Author*

ONE LITTLE SANDPIPER
THE COMPANION OF A SEASIDE STROLL

are not to be shot except by glass-eyed guns. But now, good-bye, little piper. It's a shame to leave you; but you know, really, I can't put you into my pocket."

Baird's Sandpiper has, until recently, been regarded as an exceedingly rare migrant in California. Mr. Joseph Mailliard recorded the taking of a specimen at Mt. Pinos on August 25, 1897, as the second capture for the State. The birds are of regular occurrence at Santa Barbara in August, and have been seen in spring (e. g., May 2, 1913), so that it seems altogether probable that their earlier occurrence has simply been overlooked. On the other hand, it is known that the bird has a wide migration range in the interior, where it is fond of touching at glacial lakes and cirques at the highest elevations. It is essentially a boreal bird, for it breeds along the shores of the Arctic Ocean from Point Barrow eastward, and winters among the Andean lakes of Chile.

No. 240

Least Sandpiper

A. O. U. No. 242. **Pisobia minutilla** (Vieillot).

Synonyms.—American Stint. Peep.

Description.—*Adult in summer:* Upperparts brownish black, relieved by fuscous on wings, hind-neck, etc., the feathers more or less bordered with grayish and rusty ochraceous, especially on scapulars, where deeply indented, often nearly to shaft; upper tail-coverts and central feathers of tail brownish black; remaining tail-feathers ashy gray; sides of head, neck, and breast pale brownish or buffy, spotted and streaked with dusky; a few dusky streaks on sides; remaining underparts white. Bill blackish; feet and legs yellowish green. *Winter plumage:* Above plain brownish gray, black, if at all, only in mesial streaks; spotting of breast nearly obsolete, but breast heavily washed with grayish brown. *Immature:* Similar to adult in summer, but without ochraceous indentations on scapular feathers; feathers of back with rounded rusty tips; scapulars with white tips on outer web, etc.; breast less distinctly streaked. Length 152.4 (6.00); wing 91.4 (3.60); tail 43.2 (1.70); bill 17.6 (.69); tarsus 18.5 (.73).

Recognition Marks.—Warbler to sparrow size; least among Sandpipers; most liable to be confused with *Ereunetes pusillus* and *E. mauri*, from which it differs in its slightly smaller size, slenderer and shorter bill, more extensively washed breast, rather darker coloration above; and lighter, more greenish feet and legs. The absence of webs on the feet is, of course, distinctive.

Nesting.—Does not breed in California. *Nest:* A grass-lined depression on ground or hollow in moss. *Eggs:* 3 or 4; pale olive-buff or pale greenish buff, spotted and marked lightly or heavily, often finely, with reddish brown (bister to burnt umber) with duller shadows. Av. size 27.9 x 20.3 (1.10 x .80). *Season:* June; one brood.

General Range.—North and South America. Breeds from the Magdalen Islands, Nova Scotia, southern Ungava, central Keewatin, and the Yakutat Bay dis-

trict of Alaska, north to northwestern Alaska and the southern Arctic islands. Migrates throughout the United States. Winters from California, Texas, North Carolina, etc., south to Brazil and Peru, and on the Galapagos Islands. Has occurred in Greenland, in northeastern Siberia, and in England (2 records).

Distribution in California.—Abundant during migrations throughout the State. Winters commonly west of the Sierras, and from San Francisco Bay through the San Diegan district. Non-breeding birds are to be found during the summer.

Authorities.—Cassin (*Tringa wilsonii*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 721 (Petaluma); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 41 (distr. and migr.); *Moore*, Auk, vol. xxix., 1912, p. 210 (Magdalen Ids.; breeding dates).

LITTLE children of the marshes! Dainty, lisping, pattering pipers! Confiding fairies, heritors of an elder world, left stranded on the roaring shores of time! How may we, whose eyes are inflamed with covetous passion, whose ears are deafened with the sound of our own instruments of destruction, and whose hands are red with blood, how may we face your gentle innocence? And how may we endure the light of confidence in your mild eyes? God made you to rebuke our follies, and God has kept you tender and trustful in order that we may mend our ways.

Taken near Santa Barbara *Photo by the Author*

A HESITANT APPROACH

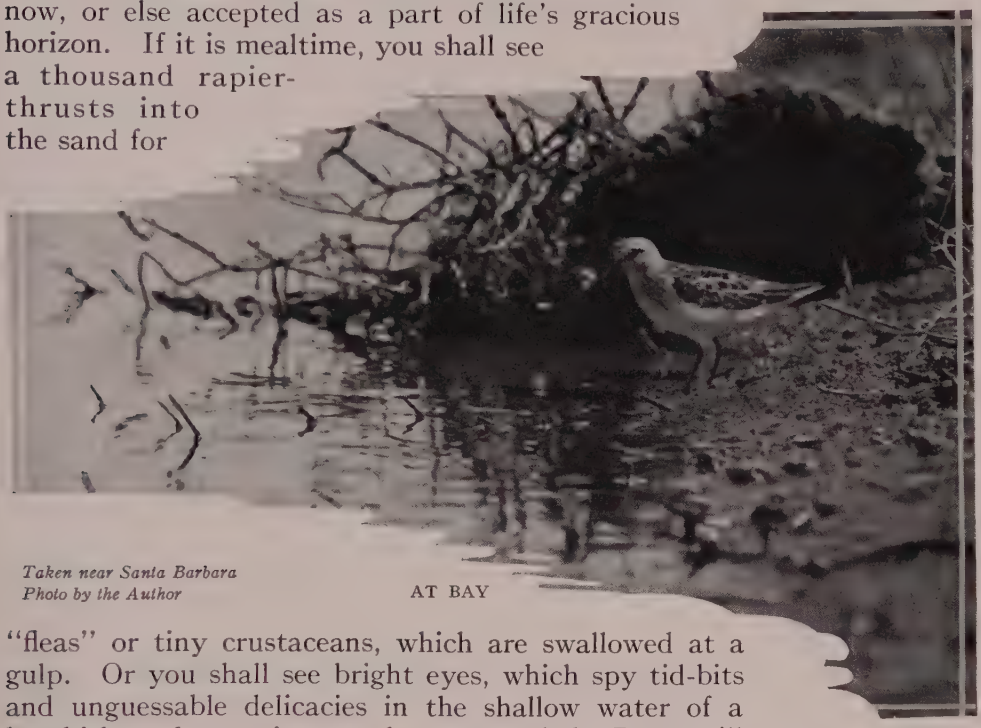
In sober truth, a man does well to approach a company of these tiny pipers on bended knees. He cannot deserve such good fortune as to be taken into full fellowship, but by a proper show of humility he may at least be permitted to see them in their innocence, dainty and unconscious;

Taken near Santa Barbara *Photo by the Author*

UP TO THE EYES

and he may guess for himself what influences have wrought to preserve so exquisite a thing in a world that reels with shock and countershock of human strife. Down upon your knees, then, or down on hands and knees to try if they will have you. You will suffer first, besides certain physical discomforts of untried muscles, you will suffer pangs of conscience, that your fellows, or yourself, perhaps, have ever betrayed these innocents. For the uneasy shiftings and incipient retreats which you see are manifestly no part of *minutilline* nature, but only an aftergrowth wrought by centuries of gun-fire. Then, mayhap, the Killdeer, remembrancer of our ancient sins, though evil-minded himself, will rehearse the danger and urge the little waifs to flight. But they, confiding souls, though swept off their feet by a sudden onslaught of evil counsel, will return presently to the same spot, forgiving, or else loth to believe so monstrous an accusation. A momentary pause, and then a babel of tiny sounds ensues. Life in all its varied functions breaks out afresh. Toilets are

made with many flashing strokes of that factotum tool, the bill; wings are stretched, and their filmy draperies are rearranged to a fairy's taste. If you have been discreet, you are either forgotten by now, or else accepted as a part of life's gracious horizon. If it is mealtime, you shall see a thousand rapier-thrusts into the sand for



Taken near Santa Barbara
Photo by the Author

AT BAY

"fleas" or tiny crustaceans, which are swallowed at a gulp. Or you shall see bright eyes, which spy tid-bits and unguessable delicacies in the shallow water of a brackish pool or on its oozy bottom; and the Peeps will wade about belly-deep, thrusting their heads under water as fearlessly as ducks. Or if it is the siesta, most privileged of hours, you shall see little beaks thrust under wing, and slumber at a rod's remove as sweet and

Taken near Santa Barbara

A TRUSTFUL COMPANY

Photo by the Author

perfect as though conducted under the shimmering canopy of an Arctic sky.

Least Sandpipers may be found almost anywhere in winter in the warmer parts of California, in the vicinity of lakes and ponds and lowland plashes, about brackish lagoons, more rarely upon sloping shores. Their numbers, however, are never so great as during migrations, since the bulk of this species winters still further south. They mingle freely with birds of either species, especially with Western Sandpipers (*Ereunetes mauri*). Sometimes they occur in flocks numbering thousands, but these occurrences are notably rarer than of yore.

According to those who have made a close study of this species, as in the Canadian and sub-Arctic regions, it is not easily possible to exaggerate the confiding nature nor the winsome grace of the Least Sandpiper at home. The female who, for a season at least, has sole care of the nest, will patter about the very feet of the intruder, or else return to the nest at any cost, even under the threat of an overarching hand. On such occasions, also, she indulges in a song, remarkable not alone for its pathos, but for its variety and musical quality as well. This song is heard at its best in mid-air, and the ecstasy of the song-passion sometimes takes the performer out of sight. But what is this? She has pleaded, she has confided, she has even offered her body with its little spoonful of meat as a ransom for her little ones. Is it not enough? Then she will sing you a song, full-hearted, exultant, sacrificial; she will win you from the flesh with its paltry lusts, and summon to a like high-minded sacrifice—to *faith*, in fine. O joy of trust! O victory of sacrifice! O anthem fitly echoed in the human heart!

Taken near Santa Barbara *Photo by the Auth*

1242 A REPEATER

IT'S ONLY ONCE A YEAR THAT A POOR PHOTOGRAPHER BODY GETS SUCH A WILLING MODEL

No. 241

Red-backed Sandpiper

A. O. U. No. 243 a. **Pelidna alpina sakhalina** (Vieillot).

Synonyms.—American Dunlin. Ox-bird.

Description.—*Adult in winter:* Above, nearly uniform light brownish gray, the feathers slightly darker centrally, or with dusky mesial streaks; primary coverts and wing-quills blackish; the greater coverts white-tipped; the inner primaries narrowly white-edged; the secondaries increasingly white on the inner web; the tertials almost entirely white; upper tail-coverts like back or darker, but the lateral feathers white or white-edged; an impure whitish superciliary line; lower eyelid white; sides of head and neck and across fore-neck and breast like color of back, but lighter; the color distributed centrally from the feathers, giving a faintly streaked appearance; remaining underparts white, or with a few gray streaks on sides. Bill longer, stouter, slightly decurved near tip, black; feet and legs black. *Adult in summer:* Upperparts black centrally with broad margining of bright rusty ochraceous; wings as before; breast, etc., grayish white, sharply streaked with dusky; belly *black*, strongly contrasting with breast; crissum, etc., white. Length 193-222.3 (7.60-8.75); wing 119.4 (4.70); tail 58.2 (2.29); bill 38.1 (1.50); tarsus 27.8 (1.09).

Recognition Marks.—Towhee size (considerably under Killdeer size); bright rufous of back and black of belly of breeding plumage distinctive; soft brownish gray of upperparts and breast; rather long black bill, slightly *curved* near tip, distinctive for plumage commonly seen.

Nesting.—Does not breed in California. *Nest:* A mere "scrape" on the ground, lined or not with leaves and grasses. *Eggs:* 4; pointed ovate, olive-buff to deep olive-buff, or water-green, boldly, heavily, and often broadly marked (sometimes in spiral or "twisted" fashion) with reddish brown (Prout's brown, deep mummy-brown or bister), with snuff-brown under-shell markings. Av. size 34.5 x 24.6 (1.36 x .97); index 71. *Season:* June; one brood.

Range of *Pelidna alpina.*—Breeds in the northern portions of the Northern Hemisphere; winters south to the Indian Ocean, Red Sea, Mediterranean, Gulf of Mexico, and Lower California.

Range of *P. a. sakhalina.*—North America and eastern Asia. Breeds on the northern coast of Siberia west to the Yenisei; in Alaska from the mouth of the Yukon and in northern British America. Winters sparingly on the Pacific Coast of the United States, more commonly in Lower California, and on the Atlantic and Gulf coasts from New Jersey to Texas, and in Asia from Japan south to the Malay Archipelago. Also occurs sparingly in the interior of the United States.

Distribution in California.—Fairly common migrant along the coast and casually inland. Winters sparingly from San Francisco southward, and has been found both in the Sacramento and San Joaquin valleys.

Authorities.—**Cassin** (*Tringa alpina, var. americana*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 719 (Petaluma); *Nelson*, Rep. Nat. Hist. Coll. Alaska, 1887, p. 110 (breeding habits, nest, eggs, etc.).

SAVE during the spring migrations, when the black of the belly is a conspicuous sign, it is not easy to distinguish this bird from the more

Taken near Santa Barbara

Photo by the Author

A SILHOUETTE

RED-BACKED SANDPIPER IN FALL PLUMAGE

numerous Westerns (*Ereunetes mauri*) with which it freely mingles. Although considerably larger than the Western, it also is called "Peep," and it shares several characteristics with its smaller kinsmen. For one thing, they are all fond of a ride. A floating log often proves an irresistible temptation to a passing flock, and they settle down upon it teetering and peeping lustily, as though it were the greatest treat imaginable. Even more ludicrous it is to see a great company of Sandpipers together with a few solemn gulls seated on the rear end of a moving log-boom. The convoying tug puffs officiously, while the water swirls away behind in dizzying eddies. But there are a hundred yards of stout cable and, it may be, a two hundred yard stretch of logs between the birds and the boat; so these urchins gather fearlessly and snicker over their good fortune in stealing a ride. A passenger on a passing steamer, catching the drollery of the thing, feels like bawling out: "Hey, Mister! Cut behind!"

The Red-backs are to be found upon the beaches and salt marshes of Humboldt Bay, San Francisco Bay, and Suisun, and in many southern localities at any time of year, save June and July, when they are at home in western Alaska. They are, however, not common in winter, and the migratory movement may be distinctly traced. The birds appear to acquire the full nuptial dress before starting out upon the northward migrations, but they not infrequently return in late summer before they have had time to lay it off. This species also wanders extensively into the interior, and stray birds may be picked up in almost any situation which provides water.

In feeding, the Red-backs usually maintain close order, and in flight as well, so that hostile fire is very destructive to their ranks. One shot

seldom suffices to teach its lesson of caution, and they are back again the next minute to look after their comrades, and to invite repeated slaughter. Suckley tells of an army officer of his acquaintance who once tumbled ninety-six birds at a single discharge of his fowling piece. It is, perhaps, needless to add that there ar'n't enough birds to go around at that rate.

A photographer comes to believe that this species is warier than most of its near relatives. Anyway, it was the last one of thirty to fall victim to my camera at Santa Barbara. Partly for that reason, and partly because Sandpipers are not on dress parade in winter anyhow, the writer has to confess a dearth of first-hand information regarding the species, and he finds only the most matter-of-fact and, therefore, least informing references to it in Californian literature.

It is only those who have been privileged to follow some of our lesser visitors to their northland homes who feel the impact and flavor of their distinguishing personalities. Chief among this privileged class is Mr. E. W. Nelson, who, writing from St. Michaels in the late Seventies, says of these birds: "Soon after they arrive in spring they are engaged in pairing, and the male may be seen upon quivering wing flying after the female and uttering a musical, trilling note, which falls upon the ear like the mellow tinkle of large water-drops falling rapidly into a partly filled vessel. Imagine the sounds thus produced by the water run together into a steady and rapid trill some five or ten seconds in length, and the note of this Sandpiper is represented. It is not loud, but has a rich, full tone difficult to describe, but pleasant to hear among the discordant notes of the various water-fowl whose hoarse cries arise on all sides. As the lover's suit approaches its end, the handsome suitor becomes exalted, and in his moments of excitement he rises fifteen or twenty yards, and hovering on tremulous wings over the object of his passion, pours forth a perfect gush of music, until he glides back to earth exhausted, but ready to repeat the effort a few minutes later."

Taken near Santa Barbara *Photo by the Author*

A MIXED COMPANY

THE BIRDS WITH BLACK BELLIES ARE RED-BACKED SANDPIPERS; THE OTHERS ARE WESTERNS

No. 242

Western Sandpiper

A. O. U. No. 247. **Ereunetes mauri** Cabanis.

Synonyms.—Western Semipalmated Sandpiper. Peep. Sand-peep. Ox-eye.

Description.—*Adult in summer:* Above mingled black, grayish brown, bright rusty and whitish—black and rusty alternating boldly on centers of feathers, the gray chiefly margining and subterminal, the white narrowly on tips of feathers only; rusty confluent on auriculars and on edges of crown into ill-defined aureole; wing-quills brownish black; upper tail-coverts black centrally, white laterally; central pair of tail-feathers black, the remaining pairs brownish gray; underparts white (the cheeks, lower neck, and breast broadly), marked sharply with grayish brown and blackish; a few scattering arrow-heads of dusky along sides. Bill black; feet and legs greenish dusky. *Adults in winter:* Rusty nearly wanting. Above chiefly plain grayish brown, with darker shaft-streaks in central area; dusky spotting of chest, etc., similarly reduced to narrow, sharply defined mesial shafts. *Immature:* Similar to adult in summer, but feathers of back and scapulars rounded, and with conspicuous edgings of rufous or white; breast tinged with buffy, and marked sparingly with dusky on sides only. Measurements: Adult female, length 167.4 (6.59); wing 97.2 (3.83); tail 44 (1.73); bill 26.9 (1.06); tarsus 24.9 (.98). Adult male, av. of 10: length 152.5 (6.01); wing 91.3 (3.59); tail 41.7 (1.64); bill 22.8 (.90); tarsus 21.6 (.85).

Recognition Marks.—Sparrow size; a little larger than *Pisobia minutilla*, from which it may be distinguished by longer, stouter bill, somewhat lighter coloration of back, clearer white below, with streaked area of breast not so extensive; partial webbing of feet, of course, distinctive.

Nesting.—*Nest:* On the ground, or bedded in sphagnum moss. *Eggs:* 4; warm buff (tilleul buff) or more rarely olive-buff, marked heavily and often very finely with reddish brown (Rood's brown or walnut-brown to burnt umber or even blackish). Av. size 29.7 x 21.3 (1.17 x .84); index 71. *Season:* June; one brood.

General Range.—Breeds in Alaska from Kotzebue Sound south to Yukon mouth. Migrates chiefly west of the Rocky Mountains and coastwise, but also appears on Atlantic Coast from Massachusetts southward. Winters from North Carolina and southern Lower California south to Venezuela and Peru.

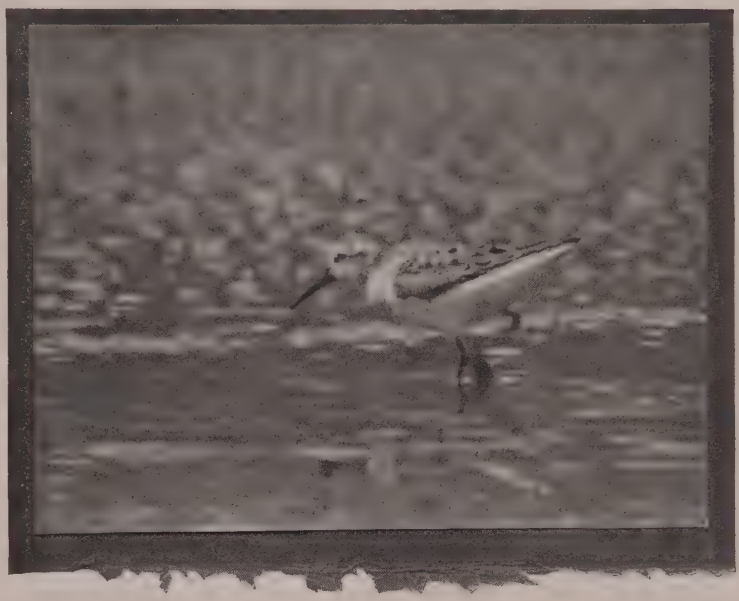
Occurrence in California.—Abundant migrant, chiefly coastwise; but also of casual appearance at interior points. Winters sparingly along the coasts, and especially in the San Diegan district.

Authorities.—**Cassin** (*Ereunetes petrificatus*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 742, part (Presidio; Petaluma); *Nelson*, Rep. Nat. Hist. Coll. Alaska, 1887, p. 113 (St. Michael, Alaska; breeding habits, nest, eggs, etc.); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 47 (distr. and migr.); *Bowles and Howell*, Condor, vol. xiv., 1912, p. 9 (Santa Barbara; migr. dates).

"SAND PEEPS are almost too well known to require comment"—and as a consequence, comments upon the Western Sandpiper are few, and our knowledge of the species is a little hazy and lacking in detail. Yet

our mud flats and sandy shores are visited in fall and spring by myriads of these confiding voyageurs. While they are most abundant in late April or early May, and again in August and September, we yet have a little sprinkling of them throughout the year, so that ignorance of them is without excuse.

A mud flat, left bare by the receding tide, is the most favorable for study; and here our little friends gather in companies which sometimes number up into the thousands. The company is oftenest "mixed" with Least Sandpipers (*Pisobia minutilla*). Sometimes it is "fine-mixed," with Sanderlings or Red-backed Sandpipers or (especially along shore) with Semipalmated



Taken in Santa Barbara — *Photo by the Author*

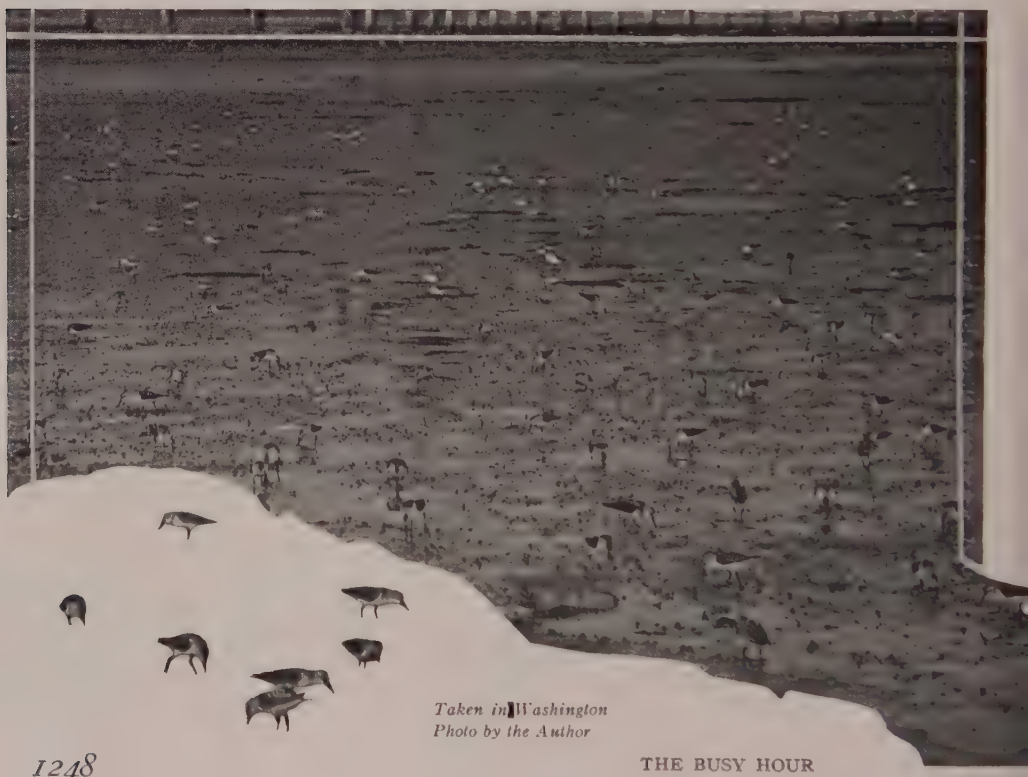
AN INNOCENT TROPHY

Taken in Washington — *Photo by the Author*

THE BIVOUAC

Plovers. Often a company of these little tots, of whatever degree of mixture, will attach itself to some larger wader, a Knot or a Willet or a Long-billed Dowitcher, and the amiable giant, so adopted, is obeyed implicitly in subsequent evolutions.

No better opportunity is afforded to study and speculate upon the mystery of flock movement than in the case of these gentle peeps. In flock flight they weave and twist about, now flashing in the sunlight, now darkening to invisibility, charge and recharge, feint and flee, all as a single bird. And because they keep up a dainty chattering, like a fairy rattle-box, one cannot decide whose voice in the babel has authority. Upon alighting, they first pause in absolute silence, absurd little Platos, done in plaster and sown broadcast over the sandscape. This, that they may note whether their coming may have provoked hostile notice. Reassured upon this point, they become animated, and begin to patter and pick and probe and peep, as though there were nothing else in life. There is something so detached about their happy chatter, that the birdman feels like an uninvited cow whose hulking presence the banqueting fairies are politely minded to ignore. The flock moves slowly forward and successive platoons rising from the devastated rear pass over their fellows to take turns at the



Taken in Washington
Photo by the Author

Taken in Washington *Photo by the Author*

THE DAY IS FOR REST

front. All is as merry as wedding bells, and the birdman with his camera is trembling with excitement. But suddenly one of the little soldiers is smitten with a fear-thought. Like an electric flash it is communicated to all his comrades. Instantly, in the dreadful hush which follows, the flock takes wing as one bird, and they pass out of hearing, arguing excitedly. Ten to one, after they have swept the horizon two or three times, the panicky member is outvoted, and the Peeps troop back confidingly to resume the pastures which they have just deserted.

At high tide the little fellows retire to the edges of the flats, where they either prepare elaborate toilets or else engage in one-legged slumbers. If the tide is too insistent, they do not mind standing in an inch or so of water. But it is delightfully absurd to see them economizing strength by the use of only one leg. Perhaps they want to keep one foot dry, for I have seen them hop about in a lazy tide pool, clearing the surface of the water at every jump, but never disclosing the missing member in the process. Or perhaps one of them had started a boyish dare, with a baby limpet as a prize to the one that held out long-

Taken in Santa Barbara *Photo by the Author*

FLUTTERING PEEPS

Taken in Washington *Photo by the Author*

PEACE

est. Anyhow, I think they all won, for as nearly as the eye could judge the birds hopped to wing without the assistance of the elevated foot, when startled from this position.

On another occasion when they wished to glean from the surface of a light water-weed which was too frail to support their weight, and in water too deep for wading, I have seen the birds maintain themselves with fluttering wings while they snatched their prey rapidly. The legs meanwhile were used for what they were worth, and as often as the water-weed did promise to support the weight thus, the wing-motion would cease momentarily. Seen breasting the wind in this fashion, the Peeps rather reminded one of Swallows, or even of Black Terns, although the fluttering was more uniform than the dab-and-dodge method of the Tern.

These little Peeps, by the way, swim as gracefully as Phalaropes when they are put to it. But they swim, apparently, only when tempted beyond their depth in pursuit of some escaping *edenda*, or when surprised by the inequality of the bottom.

It is a source of perennial interest to see how close one can get to a company of Sandpipers. If one has patience to lie motionless beside some salty plash, the birds will sometimes venture within touching distance. Nothing, to my mind, could exceed the flattery implied by the near

approach of these trustful creatures. If the compliment were really deserved, the cunning little souls would undoubtedly respond to the most familiar advances short of actual handling. Slaughter in the name of science may be justifiable, though there be those of us who have passed up the solution of many nice problems here; but slaughter of these innocents in the name of sport is mere Philistinism. The Italian method of hunting is to shoot everything in sight. As a result, sunny Italy is a birdless desert in summer, and a nightmare during migrations.

Fortunately, the camera is superseding the gun. Pressing the button is not only more humane than shooting; it is more fun. Measured by its devices, its strategies, its hopes and fears, its tantalizing failures and its crowning triumphs—in other words, by its thrills—bird photography is ten times better sport than gunnery. Its trophies, moreover, are permanent and satisfying. In place of an emptied plate and an endless regret, the camerist retains a record which delights the eye and ministers to the spirit unceasingly.

Taken in Washington *Photo by the Author*

A MOMENTARY ALARM

But do not envy the bird-photographer overmuch. He, too, has paid a price. If he has seemed to fellowship with the birds, it was only that he might get their images; and in getting these he has not seldom missed the birds themselves. The technique of photography, even snap-shottery, is quite exacting. One cannot both study and photograph birds at the same time. The camerist may score a success, and come away after an exciting brush with a rare species, flushed with triumph, yet knowing little of the bird's characteristic behavior and psychology. It is for your sake that he has wrought, and sacrificed mayhap his very opportunity to acquire that intimate knowledge of character which only the notebook may record. It is thus, I fear, with the Western Sandpiper. He is as common as mud, and as fascinating as a kitten; but, alas, he is photographically irresistible. We have forty-five negatives of the Western Sandpiper—and a flat notebook.

In these humiliating circumstances (and because we really cannot be expected to follow our guests in person to Alaska) we shall again have recourse to the treasury of that doughty observer, Mr. E. W. Nelson, of St. Michaels: "The warm days toward the close of May cause the brown slopes and flats to assume a shade of green, and among the pretty bird-romances going on under our eyes none is more charming than the courtship of this delicate Sandpiper. They have forsaken the borders of icy pools, and, in twos and threes, are found scattered over the tundra, showing a preference for small dry knolls and the drier tussock-covered parts of the country in the vicinity of damp spots and small ponds. Here the gentle birds may be seen at all times tripping daintily over the moss or in and out among the tufts of grass, conversing with each other in low, pleasant, twittering notes, and never showing any sign of the wrangling so frequent with their kind at this season. The female modestly avoids the male as he pays his homage, running back and forth before her as though anxious to exhibit his tiny form to the best advantage. At times his heart beats high with pride and he trails his wings, elevates and partly spreads his tail, and struts in front of his lady fair in all the pompous vanity of a pygmy turkey-cock; or his blood courses in a fiery stream until, filled with ecstatic joy, the sanguine lover springs from earth, and rising upon vibrating wings, some ten or fifteen yards, he poises, hovering in the same position, while he pours forth a rapid, uniform series of somewhat musical trills, which vary in strength as they gradually rise and fall, producing pleasant cadences. The wings of the songster meanwhile vibrate with such rapid motion that they appear to keep time with the rapidly trilling notes, which can only be likened to the running down of a small spring and may be represented by the syllables *tzr-r-e-e-e, zr-e-e-e, zr-e-e-e,* in a fine high-pitched tone with an impetus at each 'z.' This part of the song ended, the bird raises its wings above its back, thus forming a V, and

glides slowly to the ground, uttering at the same time, in a trill, but with deeper and richer tone, a series of notes which may be likened to the syllables *tzur-r-r-r, tzur-r-r.*"

n in Washington *Photo by the Author*

EXEUNT

No. 243

Sanderling

A. O. U. No. 248. **Crocethia alba** (Pallas).

Description.—*Adult in summer:* Crown and upperparts, in general, blackish with heavy edging of ashy white, and with much striping, sub-marginal marking, or indenting and barring, of pale rufous; forehead, sides of head, throat, and neck all around, and sides of breast ashy white, strongly tinted with pale rufous, and finely spotted with dusky; remaining underparts pure white,—the white well up on sides of rump, and including outer feathers of upper tail-coverts; wings, marginally, and including exposed portions of quills, fuscous; the greater coverts tipped with white, and the wing-quills changing to white on their inner webs and under surfaces; the inner primaries white basally on outer webs; tail dusky above, ashy gray on lateral feathers. Bill and feet black. *Adult in winter:* Wings dusky, varied, on middle coverts, etc., with white; central upper tail-coverts and tail-feathers dusky; remaining upperparts ashy gray (nearly pearl gray); the feathers, especially on crown, with dusky shaft-lines; entire underparts pure white. *Immature in fall:* Somewhat like adult in summer, but without rufous anywhere; back, therefore, showing more black, varied chiefly by white in scant edgings and tips, or in liberal indentations on scapulars and tertials; feathers of rump nearly square-ended, marked subterminally with light ashy gray, but tipped with a sharp, narrow band of blackish; underparts white,—or sometimes spotted on breast. Length 177.8-222.3 (7.00-8.75); wing 122.4 (4.82); tail 53.6 (2.11); bill 26.9 (1.06); tarsus 25.9 (1.02).

Recognition Marks.—Towhee size; fine, mottled rufous, ashy and black of spring birds; excess of white in fall specimens; black bill, strongly contrasting with adjacent plumage. Absence of hind toe, of course, distinctive.

Nesting.—Does not breed in California. *Nest:* A depression in ground, scantily lined with dried leaves and grasses. *Eggs:* 4; pointed ovate, dark olive-buff with a greenish cast, very uniform, marked finely, sparingly, and rather obscurely with bister. Av. size 35.8 x 23.1 (1.41 x .91); index 64.7. *Season:* Last week in June; one brood.

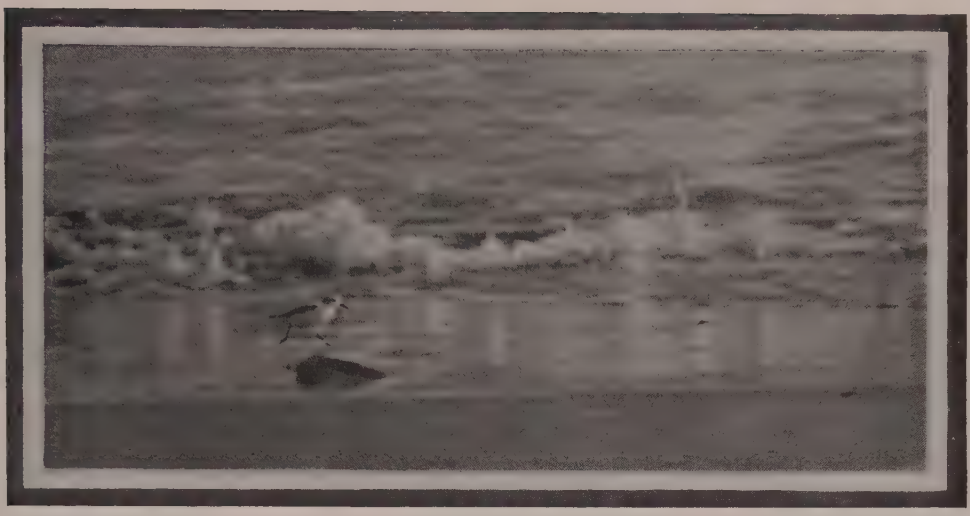
General Range.—Appears on nearly all shores, except those of the Australian sub-region. Breeds in high Arctic latitudes, and winters south from California and Virginia to Patagonia, and from the Mediterranean and Japan to Burma, Cape of Good Hope, etc.

Occurrence in California.—Common spring and fall migrant coastwise. Winters rather sparingly, but especially in the San Diegan district and on the islands.

Authorities.—Heermann (*Tringa arenaria*), Rep. Pac. R. R. Surv., vol. x., 1859, p. 65; *Dwight*, Auk, vol. xvii., 1900, pp. 374, 379 (molt); *Manniche*, Terrestrial Mam. and Birds n. e. Greenland, 1910, p. 139 (breeding habits; nest and eggs, etc.); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 47 (s. Calif. ids.).

YOUR SANDERLING is the model Shore-bird. Simple in form, modest in color, regular in habit, and cosmopolitan in range, he stands forth as a sort of epitome, or generalized type, of the order *Limicolæ*. It is not alone because he lacks those eccentricities of dress or behavior which

Taken in Santa Barbara *Photo by the A*



Taken in Santa Barbara *Photo by the Author*

OVERDUE

distinguish so many of his kinsfolk that we hail him chief, but because in structure and habit he is most exactly adapted to those special circumstances which constitute a shore. Pray consider what a very special sort of place a shore is. It is the meeting place of the two biggest things on earth; viz., land and sea. Taken broadly, it has all the variety of the one and the mystery of the other. It is the point of contact between two incommensurables, two practical infinities. It is the place of revelation, too; for the sea not only displays thereon examples of her own briny treasures, but she takes a tithe of all that the land has to give her and flings it back in scornful tribute on the shore. In width a shore may vary from a mathematical postulate, as where a glacier fronts the ocean with its wall of ice, to a teeming lagoon whose inner confines are leagues removed from the roar of the surf. In length it is all but measureless, stretching its single-stranded mazes a dozen times around the globe. In fortune, too, it varies from the placid sands of Coronado to the fearful crags of Magellan, or the cliffs of Norway, mocking with their granite Neptune's mightiest rebuff. Of such stress and variety and opportunity were the Shore-birds born,—the Shore-birds, who alone of living creatures have laid eyes on every coast.

But of Shore-birds, hundreds-rich in species, there is an inner circle of privilege, just as there is an inner belt of what we call the shore. The changes of the tide, with their recurrent wettings of the sand, mark out this inner belt of privilege. To a place at this magic table all Shore-birds may, indeed, aspire on occasion,—Turnstones, Godwits, Plovers, all these

and a hundred Pipers more; they know the feel of soft wet sand and they know the flavor of sand-fleas seasoned with a gulp of brine. But for one bird and one only is the highest place reserved. For within this special belt there is a very special line, a sinuous line which not in all Earth's

Taken in Santa Barbara *Photo by the Auth*

HESITATION

history was ever twice the same, a line which has broken into a billion new curves while these words are being read. It is the edge of the wave which the Sanderling follows, and he is *the* Shore-bird *par excellence*.

The armies of Sanderlings constitute the most mobile militia in the world. They are not fighters, but they are eternally foraging, and they are as skilled in retreat as in pursuit. They charge upon the very heels of the retreating wave, snatching deftly the rations which the enemy has discarded; then turning at the exact moment when the waves are rallying, they scamper blithely just out of reach of their roaring antagonist. Forward and back, forward and back, they patter in ceaseless rhythm. Indeed, they seem themselves to be a part of the tidal mechanism, for they are swept along at the brink of the wave, a yeasty vanguard with foam-white breasts; and then, *dorso verso*, they disappear like bursting bubbles, blending their colors with the sands, which rustle with the wave's retreat.

It is a matter of pride with the Sanderling not to get wet more than belly-deep; hence, if need be, he accepts a little assistance from the lifted wing in running up-shore. None knows better than he the degree of a wave's determination, and though he has perfected a mighty stride and can pedal like the wind, flight, too, can be as instant. Being by habit so

nimble, these birds think nothing of quitting a locality upon the slightest suggestion of danger up-shore. And for the same reason they do not hesitate to re-establish themselves at a few rods' remove. On the other hand, a person seated quietly on the sand, say thirty feet from the water's edge, may see a company of rather conscious pipers approaching up wind. The picking is good. It would be too bad not to finish the row. There are hesitations, huddlings, cautions, feints, and miniature retreats. They are as conscious as schoolboys about to say a piece. Finally, some brave Roderick makes a dash and goes scudding past. Others follow, and the ordeal is done without the humiliation of flight.

In observing a large flock which had been several times disturbed, I noted that immediately upon alighting at the water's edge they dispatched an attacking force up the beach slope to deploy as skirmishers over the dry, level sands at the top. When threatened, this vanguard invariably reassembled and pattered, or fled, down the slope to rejoin the reserves before taking final flight. This was done so quickly and so methodically as to argue the utmost familiarity of usage.

Although Sanderlings rarely visit the lagoons or mudflats, they spend a good deal of time resting in the upper sands; or after an elaborate toilet beside some tidal pool, they foregather with the gulls and take one-legged snoozes in serene content.

A single leg serves many birds as a prop during the hours of slumber, but it has remained for the Sanderling to perfect hopping as a means of locomotion. One's sympathies are aroused at first upon seeing one poor little piper making prodigious hops in the effort to keep up with the retreating wave—and doing very well at it too—but when he sees a dozen

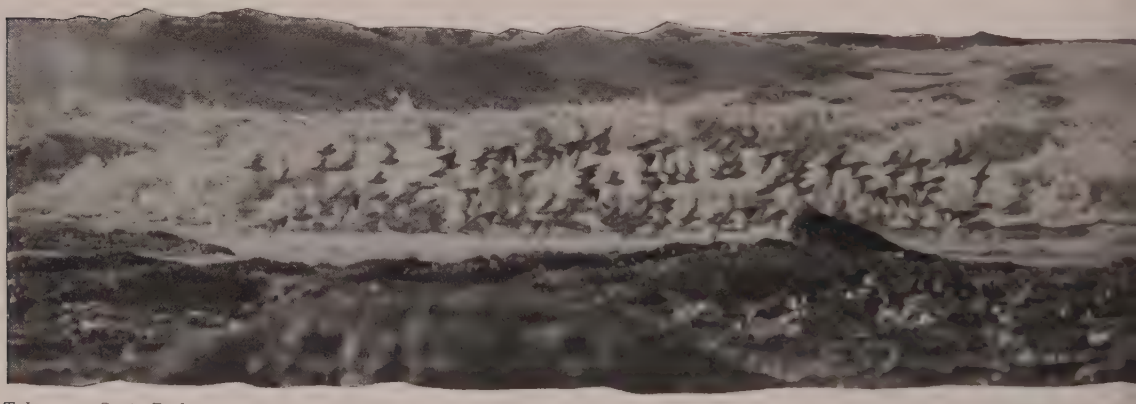
Taken in Santa Barbara
Photo by the Author

A LITTLE ASSISTANCE FROM THE LIFTED WING

birds at once running about on one leg, he realizes that it is just a boyish prank. It's more fun than stilts, apparently, and never a broken nose to pay for it.

Sanderlings in their winter range occur chiefly in small flocks numbering from a dozen to forty individuals. Larger flocks, sometimes numbering hundreds, are, however, characteristic of the migrations. Sanderlings are rather independent in their associations, being at all times self-reliant and ready to back their own judgment. They are on good terms with the Black-bellied Plovers (*Squatarola squatarola*), and will tolerate Western and Red-backed Sandpipers, though they do not seek such companionship.

The Sanderling is the most widely and thoroughly distributed of all Shore-birds (save, possibly, the Turnstone, of which, however, *two* races are distinguishable, *Arenaria interpres interpres* and *A. i. morinella*), and it is not known to present any geographical variations. It breeds in the high Arctic regions, being among those found farthest north; and it winters on all continental, ice-free shores, save those of Australia. In migrations it occurs freely on inland waters, but it probably does not winter beyond the reach of the tide. It was formerly, probably erroneously, accounted rare along the Pacific Coast, where it is now recognized as common, but it is altogether probable that East Pacific migrants hail from breeding grounds which lie a little east of north.



Taken near Santa Barbara *Photo by the Au*

"FLIGHT CAN BE AS INSTANT"

No. 244

Marbled Godwit

A. O. U. No. 249. **Limosa fedoa** (Linnæus).

Synonyms.—Brown Marlin. Common Marlin. Spike-billed Curlew.

Description.—*Adult:* General color pale cinnamon or ochraceous-buff; the head and neck all around streaked and spotted with brownish dusky; the back, etc.,

heavily and irregularly barred with the same,—a typical feather from the scapulars has a broad dusky center shaped like a dandelion leaf, the complementary spaces being ochraceous-buff, or irregularly white; the primary coverts, and outer webs of three outer primaries brownish dusky; the breast (especially on sides), the sides, flanks, and lower tail-coverts, with fine wavy bars of dusky; the superciliary line and throat immaculate, pale buffy, or whitish; the axillars and lining of wings darker—say, pale cinnamon-rufous. Bill, slightly upturned, livid flesh-color, blackening toward tip; feet and legs blackish. *Immature:* Similar to adult, but immaculate on breast; sides and flanks less distinctly and extensively barred. Length 419.1-533.4 (16.50-21.00); wing 232.4 (9.15); tail 79.5 (3.13); bill 108.7 (4.28); tarsus 69.6 (2.74).

Recognition Marks.—Crow size; large size; long, slightly upturned bill; pale cinnamon coloration; "marbled" appearance of upperparts.

Nesting.—Does not breed in California. *Nest:* On the ground. *Eggs:* 3 or 4; olive-buff of varying shades, spotted or marked broadly but sometimes obscurely with burnt umber and violet-gray. Av. size 57.9 x 40.6 (2.28 x 1.60). *Season:* May 20–June 10; one brood.

General Range.—Temperate North America and South America. Breeds in a narrow range in Saskatchewan, Manitoba, and North Dakota. Migrates directly to all sea-coasts, formerly to Atlantic Coast as far north as Prince Edward Island, to southern portions of Hudson Bay, and on Pacific Coast as far north as Vancouver Island; now chiefly to Gulf Coast and to California Coast; thence south along coast of Mexico and Central America to Peru. Wintering from Gulf States and southern Lower California southward.

Occurrence in California.—Common migrant along or near sea coast; more abundant in fall. Winters sparingly even to Humboldt Bay. Not recorded from the islands.

Authorities.—Gambel (*Limosa fedoa*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 223 (Pac. Coast U. S. in winter); *Bent*, Auk, vol. xxiv., 1907, p. 160 (nesting habits, N. Dakota); *Bailey*, Condor, vol. xviii., 1916, p. 101 (habits; s. Calif. in winter).

Taken near Santa Barbara
Photo by the Author

STRANGE POSTURINGS

Taken in Santa Barbara *Photo by the Author*

A GOOD WIGHT

FOR MYSELF I confess an extravagant affection for the Shorebirds. It cannot be merely because they are so demure, so shy, or so gracefully engaging. Some of them are grotesque, some timorous to a fault, and some frankly hostile. Nevertheless, we get along famously. It must be because we love pretty much the same things, especially the shifting, thousand-toned sands, the impartiality of the tide, the ceaseless murmur of the waves, and the mysterious edge of the world—the meeting place of reality and romance. Anyhow, I love the Sanderlings, and the grey, shy, silent Plovers, and the sanctimonious Godwits,—homeless, careless, happy wanderers, every one.

The Californian's knowledge of the Marbled Godwit is likely to consist of a series of snapshots taken along the beach or on the flooded meadows of some shooting club. Four such pictures come to me out of the teeming records:

A group of eleven birds is ranged along the water's edge in such fashion that every motion is silhouetted against the gleaming sand. Sand-fleas, which, as the dictionary solemnly informs us, are amphipod crustaceans, are the order of the day. Strange posturings,—kiwi poses,open chopsticks, and figures of four—characterize the quest. The sand-fleas are not allowed to remain secure in their deep-dug wells, but are ruthlessly dragged out and swallowed in swift succession. As I approach, up-beach, there are signs of uneasiness, but a bevy of Turnstones, which I have been disciplining with the camera, settles among them and restores confidence. A few pause for meditation or digestion, while their companions continue their labors. Altogether

they look like benevolent spooks, visitors from No-Country, as they alternately gaze upon me with steadfast, benignant eye, or fall to gobbling sand-fleas. The Turnstones, their voluntary wards, are first fearful, then frantic, as the distance between us lessens, and they fly away presently, shrieking that they have been betrayed, while the "good wights" themselves only edge away decorously.

It was a pretty sight to see three Long-billed Curlews, a Hudsonian or "Jack" Curlew, and two Marbled Godwits in bathing together. Again and again they soused themselves in the shallow pool or stood thigh-deep and splashed the water vigorously with their wings. Once the "Jack" squatted down and lay, chin-deep, upon the water, and with his back nearly awash, as though determined to get a good soaking. One of the Godwits "had a bite," and retiring to a shallow spot stood on one leg and kicked the base of his bill vigorously with the free foot at least forty times in succession. (Try that, boys!) After elaborate preening and a little bug-catching, ashore, the Long-bills said, "Well, boys, we must be going. One, two, three!" and rose together. The other birds looked dubious for a moment but decided to take a nap instead.

On the 14th of October, 1911, the day before "Opening Day," Dr. B. F. Alden was showing the birdman the courtesies of the "Empire" grounds, in Monterey County, and kindly volunteering the role of photographer's assistant. Pond "Ten" had a few ducks on it and something which interested us a great deal more, viz., Marbled Godwits, a dozen or more of them. The pond was really little more than flooded grass-land, and in this the Godwits delighted to stalk, or on the more solid portions to squat at rest. I refused several chances at them at decent range on account of the green background, which will not "take." If not pressed too hard, the birds, I found, would simply sneak away through the tall grass and not fly at all; but if they did fly, instead of breasting the wind or rising above the skyline, for a fair mark, they indulged in the reprehensible habit of letting go suddenly and whisking down wind quite out of range. The bird reserved for this occasion a childish and most ridiculous squawk which by no means relieved the tension of my nerves.

Tired at last of pursuing these elusive fowls, I turned my attention to an alluring little company of Northern Phalaropes playing on the water at my feet. I had just released the shutter on a group of these and was changing the plateholder, when I caught sight of my companion right in the range of my recent efforts, but a long ways off. The good doctor, supposing that I was still on the job, had succeeded in outflanking the enemy, and judging now that I was fully ready, made a rush at the juiciest bunch of Godwits I shall ever see. I shouted and—well, never mind if I did. It was enough to make angels weep to see fifteen Godwits rise in a

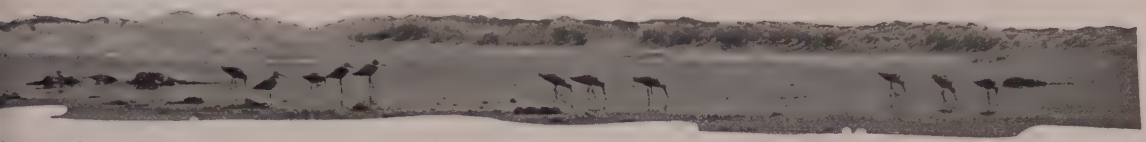
Taken in Santa Barbara "THE SANCTIMONIOUS GODWITS" *Photo by the Author*

bunch—rise above the skyline, and I without time to get into action.

In the fourth "picture" the camera does the talking and there really is nothing to say. The time was May 4, 1914, and the place Santa Barbara, within hail of a policeman. As we bowled along the East Boulevard we sighted two great, innocent Godwits feeding at the water's edge, where the beach is narrowest. They were letting two pedestrians pass at fifty feet, so we whirled about, unlimbered the camera, drove up alongside the curbing and opened fire from the auto. Then I made advances on hands and knees, or bellywise, in studious humility. Half scared, half curious, the birds retreated slowly, but I succeeded in getting within twenty feet of them on two occasions. The Godwits must have thought me a silly fellow, kowtowing to their prairie-bred majesties in such abject fashion. Or perhaps I was the great California Badger, of which they had heard. All right; we are willing to be all things to all birds, if by any means we may photograph some. Behold your servant the sand turtle, the stranded merman (Bing!—another exposure), the legless wonder, the omphlopophagus (Bing!—reverse and change). But the advent of a noisy truck occurring in conjunction with my own perigee—or periornis—puts the quarry to flight, gently murmuring.

The Marbled Godwits have suffered much from gunfire, and from invasion of their breeding haunts. Formerly nesting as far south as Nebraska and Iowa, they are now known as breeders only in a few spots

in southern Minnesota and North Dakota, and in the Canadian Provinces. The lake-sprinkled plains of Alberta and Saskatchewan are their principal summer home, and in leaving this they fly almost due east or west, being determined, apparently, to reach the seacoast at the earliest possible moment. The coastwise migrations are rather leisurely, and a few stragglers winter in the southern part of the State.



ken near Santa Barbara *Photo by the Author*

THE GLEANERS

No. 245

Greater Yellowlegs

A. O. U. No. 254. **Neoglottis melanoleuca** (Gmelin).

Synonyms.—Long-legged Tattler. Stone Snipe.

Description.—*Adult in summer:* General effect mottled black (grayish brown and brownish black) and white; underparts and upper tail-coverts white, immaculate on middle of belly and crissum, finely and sparsely blackish-spotted on throat, heavily blackish-streaked on sides of head and on neck all around; heavily spotted or wavy-barred on breast, sides, lining of wings, etc.; lightly barred on axillars and upon tail-coverts; upperparts mingled brownish gray and brownish black, varied by white or whitish; white occurring as streaks on head and neck, elsewhere as rounded terminal edgings or lateral indentations; exposed wing-quills plain blackish; tail blackish-and-white-and-gray barred. Bill, straight or slightly inclined upward, not with regular curve, but as if bent near the middle, black or greenish black; feet and legs chrome yellow. *Adult in winter:* Duller; spotting and barring of under plumage greatly reduced, chiefly confined to dusky streaking of lower neck and breast; above chiefly grayish brown or hair-brown (snipe-gray), margined with whitish; the blackish confined to lateral indentations of longer feathers, tertials, etc. *Immature:* Like adult in winter, but darker above, the white spotting with some admixture of brownish buff; sides of breast shaded with dusky. Length about 355.6 (14.00); wing 193 (7.60); tail 79 (3.11); bill 54.6 (2.15); tarsus 61 (2.40).

Recognition Marks.—Little hawk size; long yellow legs; *white upper tail-coverts*, with sober dusky-and-white coloration, distinctive for size; *tew, tew, tew* notes.

Nesting.—Does not breed in California. *Nest:* On the ground. *Eggs:* 3 or 4; "brownish buffy, distinctly but very irregularly spotted with rich vandyke or madder brown." Av. size 36.3 x 30.5 (1.43 x 1.20).

General Range.—North and South America. Breeds in British Columbia, southern Alaska, southern Mackenzie, Ungava, and Labrador. Migrates broadly throughout the interior, and winters from southern California and the Gulf States south to Patagonia.

Occurrence in California.—Of general distribution in the vicinity of water during migrations. Winters sparingly in the San Joaquin Valley, in the San Diegan district, and in the Colorado and Imperial valleys.

Authorities.—Gambel (*Totanus melanoleucus*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 223 (Pac. Coast U. S. in winter); *Brewster*, Bull. Mus. Comp. Zool., vol. xli., no. 1, 1902, p. 65 (western bird described as new subsp., *Totanus melanoleucus frazari*); *Bowles and Howell*, Condor, vol. xiv., 1912, p. 9 (migr. dates at Santa Barbara).

Taken in San Luis Obispo County *Photo by the Author*

PORTRAIT OF GREATER YELLOWLEGS

OUR KNOWLEDGE of the Yellowlegs is absurdly limited to an enforced acquaintance with his voice. *Tew tew tew, tew tew tew*, he shrieks wherever he goes. With *tew tew tew* he invades the swamp-lands seeking to exorcise therewith all foes, present, possible, or suspected. The birdman doesn't mind the racket, for all sounds in nature are good to him, and he would not abate their stirring harshness by one vibration. But with the hunter it is not so. He does not enjoy having his plans published nor his intended victims urged to flee for their lives. Therefore, the noisy bird foretells his own doom, and the end of the Telltale draws nigh. Yet I suppose the last member of this doughty race, starting southward sometime about 1940 from Calgary or Stickeen, will grasp his megaphone firmly and proceed to spread abroad the old, old gospel of alarm. He will sow the air, undaunted, with *tew tew tew*, until some Californian huntsman, arrived with his hammerless, powderless, aimless gun of that day, will drop him kerplunk! into a Sacramento bog. *Sic transibit pestis mundi*—and would, oh would, he might take the Killdeer with him; for be your business fair

or foul, these two birds will exaggerate its menace or lie most shamelessly.

While no longer common, the impression of abundance still persists by reason of the restless, noisy ways of these Tattlers, so that if there be a single bird about a horse-pond, the whole country-side is likely to know of it. The birds frequent not only tide-flats and salt-water marshes, but duck-ponds, upland-pools, and river-bars as well. Sometimes they move uneasily from one part of the pond to another, as though discontented with the fare offered; and at all times, with reason or without it, they utter their high, querulous notes, *tew tew tew, tew tew tew*,—always in groups of three.

While feeding, the Tattler wades about, knee-deep, snatching its food from the surface of the water, or else thrusting its head below for a quick search along the bottom. Snails and the larvæ of insects are among his usual victims, but the bird is quite smart enough to seize tadpoles or minnows. At such times it may be very alert or quite unwary, according to the amount of persecution it has previously endured. By the side of a farmyard pond I once watched a bird which seemed rather to enjoy company, so long as you didn't actually step on him. With immaculate undergarments rolled tightly above each knee (or *heel*, if you insist on anatomical correctness), he would adventure to wade around you rather than to fly out of your way. At other times, one cannot get within a hundred yards of them.

During the migrations, the Yellowlegs appear singly as often as in small flocks. The fall movement, which sets in by the middle of August, or even earlier, is a little more leisurely than that of spring, inasmuch as the bird's business is less urgent; and because of the year's increase, they are noticeably more numerous in autumn. A few winter with us, but South America is the normal winter home of the species. In far-off Argentina, the birds are said to linger to some slight extent throughout the year, although they do not breed there. In like manner, occasional non-breeding birds have summered in California, but there is no reason to suppose that they ever bred within our borders in historic times, nor, indeed, anywhere short of British Columbia or Washington.

Mr. Samuel N. Rhoads, in 1892, found them nesting about certain inland lakes in British Columbia as far south as Clinton (Lat. 51°). "At this season both sexes stand sentinel on the tops of trees in the vicinity of the nest, rarely alighting on the ground during the presence of an intruder. The newly fledged young often follow the example of their parents in this respect. From this position the male keeps up an incessant clamor throughout the day. One series of notes, uttered only during periods of fancied security, is peculiar and unquestionably a love song."[1]

[1] Proc. Acad. Nat. Sci. Phila., 1893, p. 36.

No. 246

Lesser Yellowlegs

A. O. U. No. 255. **Neoglottis flavipes** (Gmelin).

Synonyms.—Tattler. Lesser Tattler. Common Yellowlegs. Yellow-shanks Tattler. Tell-tale.

Description.—An almost exact miniature of the preceding and not requiring separate description; markings of underparts perhaps a little less extensive. Length about 266.7 (10.50); wing 155.2 (6.11); tail 59.9 (2.36); bill 37.1 (1.46); tarsus 50.3 (1.98).

Recognition Marks.—Killdeer size; like preceding species but smaller.

Nesting.—Does not breed in California. *Eggs:* 4; olive-buff (variable as to shade), distinctly (sometimes broadly) spotted or blotched with dark chocolate or blackish brown and violet-gray. Av. size 42.9 x 29.2 (1.69 x 1.15).

General Range.—The Americas, breeding from northern Quebec and southern Saskatchewan to southern Ungava, and northwesterly to extreme Alaska; migrating southward, but chiefly east of the Rocky Mountains, through Middle America to Chile and Patagonia.

Occurrence in California.—Rated by Grinnell as a "rare migrant", with enumeration of records. Of regular occurrence at Santa Barbara during the autumnal movement, but noted in spring only in the season of 1912: Apr. 27, May 1, and May 3.

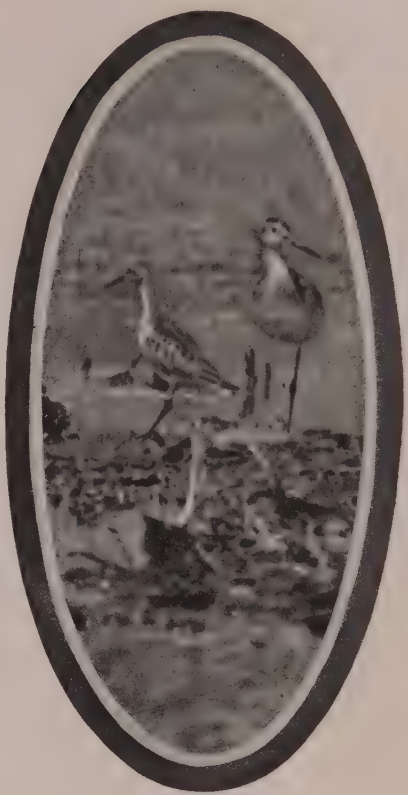
Authorities.—**Newberry** (*Totanus flavipes*), Rep. Pac. R. R. Surv., vol. vi., 1857, p. 98 (Rhett Lake; *Townsend*, Proc. U. S. Nat. Mus., vol. x., 1887, p. 198 (Humboldt Bay); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, p. 56 (distr. and migr.); *Dawson*, Condor, vol. xv., 1913, p. 204, figs. (Santa Barbara, August).

MR. WELLS W. COOKE, who has specialized on the migrations of the Shore-birds, says: "The Yellow-legs is rarely seen west of the Rocky Mountains, but a few occur along the coast from northern Alaska (Grinnell) to southern lower California (Brewster)." California records, at least, are exceedingly scarce. Two occurrences at Santa Barbara are, therefore, important enough to warrant explicit record. On August 30, 1912, I saw five of the Lesser Yellowlegs in company with two of the Greater, and a scattered host of smaller pipers, feeding upon the mud-flats near Colonel Beale's place (the Beale Estero, we sometimes call it). The muck here is foul, not alone with natural accretions but with the rudera of civilization. But bird photographers must not be choosers. I shucked shoes and socks in a trice, seized the Graflex and waded in. Passing automobilists, I fear, were highly amused at the spectacle of this return to nature, but their hilarity gave me no such concern as did the trepidation of the birds.

Left to themselves, the Yellowlegs, being newcomers, would have made very decent subjects, but they received altogether too much advice from wittier birds to achieve photographic fame. The Greater Yellow-

legs was outraged by their reckless conduct and departed early. The Killdeer emptied his basket of falsehoods at their devoted heads and really got the Tattlers into quite a panicky state. The Sandpipers, too, left their credulous majors with disgusted *yips*. Altogether I had a very hard time of it, and succeeded in recording only a few mocking blurs. Two of these birds lingered for two weeks, although the continued influence of evil associates made them photographically impossible.

Better fortune awaited on the 16th of August, 1913, when a company of eleven of these Lesser Yellowlegs was found in the Santa Barbara Estero. That was a wonderful day, anyhow, for at the very time the birdman was shuffling about in the ooze, and requesting the Tattlers to "look pleasant please," there were twelve other species of waders within a stone's throw. Their very names (rendered in English) will gladden the heart of the ornithologically elect. They were Wilson Phalarope, Northern Phalarope, Baird Sandpiper, Least Sandpiper, Western Sandpiper, Marbled Godwit, Greater Yellowlegs, Western Solitary Sandpiper, Long-billed Curlew, Killdeer, Semipalmated Plover, and Snowy Plover. The Killdeer, again, was sowing sedition, but his blasphemous counsels were rejected. The Yellowlegs preferred the milder society of the Phalaropes and "Westerns" (*Ereunetes mauri*), and they did not especially object to the company of an ungainly biped who hugged a curious black box.



Taken in Santa Barbara
Photo by the Author

A STUDY IN COMPARATIVE YELLOWLEGOLOGY

BOTH SPECIES, GREATER AND LESSER, WERE SECURED BY ONE LUCKY SHOT

It is difficult for a novice to decide upon the identity of this bird, as distinguished from *N. melanoleuca*. The presence of one of the Greaters on the same pond is, therefore, of great assistance in clarifying first impressions. On this same day I had the good fortune to glimpse the two species in close company. The tableau lasted but a moment, for upon the instant of discovery I swung upon them with the Graflex, as one would level a gun, and at the report of the shutter they were off like rockets. As they flew, they made outcry in two different keys of Totanine indignation, the notes of these two species being even more distinct as a measure of difference than the relative size of their bodies.

The most prominent characteristic of these Lesser Telltales, as they flutter about from place to place, or rise for extended flight, is the tail appearing almost white—for the cross-barring of the tail-feathers, while apparent enough in the hand, is scarcely noticeable at a distance. Upon alighting, the bird remains a moment with wings held daintily aloft, and if reassured, folds them quietly, one at a time, like a yacht hauling in sail, or simultaneously, as the case may be. On foot it is often restless, bobbing or teetering with nervous apprehension, and serving frequent notice of its readiness for departure. As though conscious, however, of its own preparedness, it will usually suffer a much nearer approach than most other species of waders.

Taken in Santa Barbara *Photo by the Author*

"THE YELLOWLEGS PREFERRED THE MILDER SOCIETY OF THE PHALAROPES AND WESTERNS"

THE YELLOWLEGS IS THE LARGEST OF THE TRIO

No. 247

Western Solitary Sandpiper

A. O. U. No. 256. **Tringa solitaria cinnamomea** (Brewster).

Description.—*Adult in summer:* Above olive-brown, or fuscous with a faint greenish tinge, blackening on wings; the head and neck finely streaked, and the back, etc., distinctly speckled with whitish or buffy; upper tail-coverts dusky, the lateral feathers spotted or barred with white; central tail-feathers dusky, spotted on edges with white; the remaining feathers of tail white with heavy dusky bars; underparts white, the sides of neck and breast and across chest streaked with fuscous; the sides, axillars, and lining of wings white, barred with dusky. Bill blackish; feet and legs dull greenish black. *Winter plumage:* Colors more blended; olivaceous tinge of upperparts nearly wanting; whitish spotting less pure; head and neck less distinctly streaked

Taken in Santa Barbara *Photo by the Author*

A GLIMPSE OF A SOLITARY SANDPIPER
THE SMALLER BIRD IS A BAIRD SANDPIPER

with light grayish brown. *Immature:* Like adult in winter, but colors still more blended, the spotting of the back pale cinnamon instead of white; no streakings on head and neck. Length 190.5-215.9 (7.50-8.50); wing 137.6 (5.42); tail 57 (2.24); bill 31.1 (1.22); tarsus 33.4 (1.315).

Recognition Marks.—Towhee size; olive-brown with white speckling. To be carefully distinguished from *Actitis macularia* by its somewhat larger size and slimmer build, as well as by the absence of spotting on the belly. *Weet, weet* note a little sharper than that of *A. macularia.*

Nesting.—Not yet distinguished from that of *T. s. solitaria.*—(Does not breed in California). *Eggs:* 4; pointed ovate; white with a pinkish, bluish, or greenish tinge, sharply and rather finely but sparingly spotted with chocolate and deep vinaceous gray; deposited in old nest of Robin, Grackle, or other species, in sapling or tree. Av. of 8 eggs in M. C. O. coll.: 35.05 x 24.9 (1.38 x .98); index 71. *Season:* c. June 1st; one brood.

Range of *Tringa solitaria.*—The Americas, breeding in cold, temperate, and sub-Arctic regions of North America; migrating through the West Indies and Middle America to Argentina and Peru.

Range of *T. s. cinnamomea.*—Imperfectly distinguished from that of *T. s. solitaria*, but probably comprises all breeding territory west of Longitude 110 West, and in general the Pacific section of the Americas. Breeds, thus, from northern Alberta (where alone authentic nests with eggs of any form of *solitaria* have been taken) to northwestern Alaska, and winters south to Peru.

Occurrence in California.—Not common migrant, but appears both coastwise and throughout the interior, chiefly in early autumn.

Authorities.—**Cassin** (*Rhyacophilus solitarius*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 733 (Fort Tejon); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 38 (occurrence in s. Calif.); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 47 (s. Calif. ids.).

The Western Solitary Sandpiper

"SOLITARY" must not be understood in too absolute a sense. It is not because of excessive fear nor hauteur that birds of this species are seldom seen with others of the Sandpiper kind; but only because they have marked preference for certain kinds of cover. In this, as in other respects, the Solitary Sandpiper is most nearly comparable to the Spotted Sandpiper, and these superficial resemblances between the two species are so close that the question of any distinction at all is rarely raised in the popular mind. But *T. solitaria* is really larger, slimmer and jauntier (if possible), with a voice a little higher-pitched and thinner. With the Spotted, it appears by the side of streams and on river bars, but it does not follow its lesser kinsman to the sea-shore in winter; and it is much more likely to seek out for itself sheltered pools and grassy plashes, which the other Sandpipers ignore. Even on the lagoons, which all must visit during the migrations, the Solitary keeps to the edge of the salicornia, and flits rather than endure exposure in the open.

"If one happens upon half a dozen of these birds feeding beside a leaf-lined pool in the depths of the woods, he may see not only a beautiful sight, but one out of the ordinary in Sandpiper experiences. The birds dart about rapidly, capturing not only slugs, worms, and small crustaceans, but insects as well. Indeed, the wings at times are carried about half-raised, as though the bird were on the very point of flight; and quick sallies are made at passing moths and beetles. If a decaying log lies half submerged, it is sure to be inspected from every point of vantage; and the bird is not averse to alighting, on occasion, upon the limb of a convenient tree. Again the bird plashes about freely upon the floating vegetation, or wades breast deep, taking care, however, that its dainty white bodice shall not be soiled. At other times, perhaps, it moves with the sedateness of a heron, putting each foot down carefully so as not to roil the water" (The Birds of Ohio).

In securing what proved to be very indifferent portraits (not shown), I pressed the bird along the muddy margin of Hope Lake toward a *cul de sac* of tules, where, as I knew, a Sora Rail was wont to lurk. The Sandpiper was cornered against the wall of reeds, and was meditating its danger. It was the psychological moment for a scare. Sure enough, the Sora burst suddenly from cover and made a dramatic rush at the invader. The Piper stood his ground upon the instant, and glared back so haughtily at the Rail that that worthy fowl, blushing, as we may believe, under the roots of his brown feathers, stammered an apology and fled incontinently to his tall timber.

Of the nesting of this wary bird we may not speak in detail, save to remark that, after many alarms and false notices of discovery, it (or at least the typical form) has positively been found nesting in the Province

of Alberta. It seems that, after the well established fashion of its kinsman, the Green Sandpiper (*Helodromas ochropus*) of Europe, our Solitary Sandpiper deposits its eggs in the deserted nests of Passerine birds, such as Robins, Kingbirds, Jays, Grackles, and the like. Since the original discovery of Mr. Evan Thompson on June 16th, 1903, many sets have come to light, and the observation is fully confirmed.

No. 248

Western Willet

A. O. U. No. 258a. **Catoptrophorus semipalmatus inornatus** (Brewster).

Synonyms.—Semipalmated Tattler. Stone Curlew.

Description.—*Adult in summer:* Above brownish gray (hair-brown), heavily marked with blackish and ochraceous buff, the black heaviest and streaky on crown, patchy and terminal on back, central and herring-bone-patterned on scapulars, etc.; the buffy occupying major indentations; greater wing-coverts and secondaries chiefly white, lightly freckled or mottled with dusky; the primaries white basally and black-tipped; upper tail-coverts pale buffy, very lightly barred or mottled with dusky; the tail light hair-brown or dusky-ochraceous, freckled with dusky; underparts palest ochraceous buffy, immaculate on belly, overlaid by light cinnamon on lower neck, breast, sides, and crissum; the throat sparsely dusky-spotted, the lower neck heavily dusky-streaked, the breast and sides heavily dusky-wavy-barred, the sides and under tail-coverts both barred and mottled with dusky; lining of wings brownish black, narrowly tipped with white; the axillars solid black. Bill dusky; feet and legs dark bluish. *Adult in winter:* Above nearly uniform blended ashy gray (snipe-gray); the sides of head, neck, and breast, and the sides heavily washed with the same color, and a lighter tinge across the chest; remaining underparts and the upper tail-coverts white or palest buffy. *Immature:* Like adult in winter, but feathers of back edged with pale ochraceous; the tail dusky-and-white barred; below tinged or faintly mottled with brownish gray on neck, chest, and sides; otherwise unmarked. Length about 406.4 (16.00); wing 221 (8.70); tail 83.8 (3.30); bill 62.2 (2.45); tarsus 67.3 (2.65).

Recognition Marks.—Crow or Curlew size; extensive white on wing (black-and-white) with large size distinctive; feet partially webbed.

Nesting.—*Nest:* On the ground or in grass tussock, of grass and weed-stalks. *Eggs:* 4; greenish white to dark olive-buff or buffy brown, spotted boldly with various shades of umber brown, and with obscure violaceous shell-markings. Av. size 53.3 x 39.4 (2.10 x 1.55). *Season:* May–June; one brood.

Range of *Catoptrophorus semipalmatus.*—Temperate North America; south in winter to Brazil and Peru.

Range of *C. s. inornatus.*—Western United States and adjoining Canadian Provinces. Breeds in suitable localities from about Latitude 56 in Alberta and Saskatchewan south to northern California, Texas, and Louisiana; and from eastern Oregon to western Minnesota and northern Iowa. Winters from the Gulf States and California (sparingly) through Central America to western Ecuador, the Galapagos Islands, and Peru.

The Western Willet

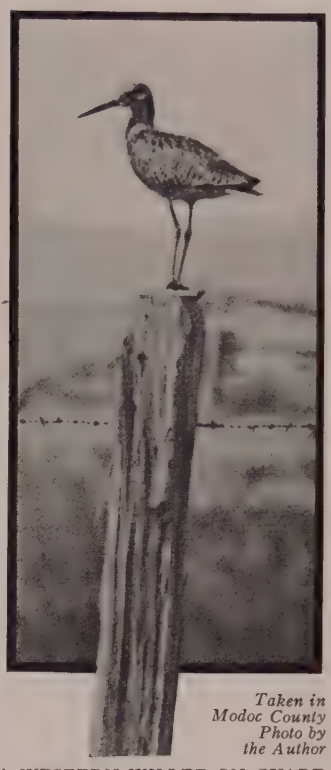
Distribution in California.—Fairly common migrant both coastwise and interiorly. Sparingly resident in summer, chiefly in the northeastern plateau district, and in winter, especially in the San Diegan district. Stragglers appear along the coast throughout the year.

Authorities.—Gambel (*Symphemia semipalmata*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 223 (Calif.); *Bowles and Howell*, Condor, vol. xiv., 1912, p. 9 (migr. dates at Santa Barbara); *Van Denburgh*, Condor, vol. xxi., 1919, p. 39 (Lassen Co., breeding; desc. habits, nest and eggs).

A HALF CENTURY of gunfire, although moderated of late, has made the Willet a suspicious and a wary bird. Seen in company with Godwits and Jack Curlews on some lonesome stretch of sea beach, it is usually the Willet who gives the first alarm. It is by this, in part, that one may recognize him, for to eyes and *at rest* he is a bit of a nondescript,—a dull, gray bird, only slightly smaller than Curlew or Godwit, and with a straightened beak, not quite so long. The sight is likely to be a rare one, and as the bird edges away murmuring nondescript warnings to his mismated fellows, the student reviews hastily his own repertory of Shore-birds—Tattler, Plover, Curlew, Knot, or what-not. But when the nondescript takes sudden wing, the secret is out. Only the Willet boasts that striking black-and-white wing pattern, which has been so cleverly concealed under a thatch of gray, for it is only the distal and under portions of the wing which are involved. There is an outburst, also, of discordant melody, for other birds from further down the line, unnoticed before, join this bolting delegate and fill the air with fretful cries, *craac'kuh* or *chêrah*. Given as the ordinary call note, or note of apprisal, it sounds to me like *kleerk*, and is repeated rapidly in threes during flight. It must be this note which successive observers have obediently reported as "*pill will willet.*" There is no accounting for tastes—or ears; but I have besought these passing birds a hundred times to say *willet*, just once, in order to justify this hoary tradition; but they have refused.

Upon alighting, at a good distance, the Willets first haul in sail, namely, fold their wings with that momentary deliberation which is so dear to the lovers of shore-bird life, and then they babble notes of congratulation and reassurance—*kō leek* and *kay ak* and *ko*. Willets frequent the beaches at certain turns of the tide, but they glean most of their living on the mud flats, probing in the soft ooze of salty or brackish lagoons. At such times they are very sociable and if no birds of their own sort offer, they will take up with Helvetian Plovers or Long-billed Dowitchers, Peeps even. I secured the portrait shown on page 1274 on the 12th of August, 1913. The occasion was a challenge, for I knew the amenability of Dowitchers, so I promptly shucked off shoes and socks and waded in. Thanks to the Dowitchers, who had no notion of deserting

their divinity, and who by their very devotion lulled the fears of that sleepy genius, I got quite decently near, say, within thirty feet of my objective. The fog just then was rolling in intermittently off the ocean, although it was high noon, and at times birds and photographer nearly lost sight of each other. By dint of sacrificing a pair of trousers, the photographer managed to keep low on the local horizon, and although the Willet showed some concern, he was *so-o-o sleepy* that he deliberately took chances and napped—under fire, as it were. The shutter, however, got upon the bird's nerves, and by the time of the third offense he edged away in good earnest.



Taken in Modoc County Photo by the Author

A WESTERN WILLET ON GUARD

Western Willets are of common occurrence during migrations along the coastal marshes of California, and they winter sparingly from Santa Barbara, or even Eureka, southward. At this season they consume worms, "sand fleas" and other crustaceans, and the smaller varieties of shell fish. Bradford Torrey reports having seen thousands together in False Bay, and that as recently as 1910; but the ranks of the Willet have been sadly depleted by gun fire and by reduction of breeding areas, so that small flocks, not over a dozen or so, and scattering individuals, are much more common.

For the nesting season the Western Willets retire to the more secluded swamps of the interior. So far as reported, they nest nowadays only in Plumas, Modoc, and Lassen counties. I found them nesting very quietly in the swamps bordering Goose Lake in the summer of 1912. Like the Jack-snipe of the same section, the Willets mounted guard on fence-posts and observed the nester's operations with wary dignity. I was unsuccessful in the quest, owing chiefly to disturbed weather conditions that year. But Dr. Van Denburgh, more fortunate, has left us a recent account[1] of a colony found breeding at Grasshopper Meadow, near Eagle Lake, in Lassen County. Here, about July 1st, upon extensive mud-flats surrounding a shallow lake, the "Academy" party found a dozen or fifteen pairs of Western Willets, and succeeded in locating five nests. The attendant birds charged and circled about the visitors, something after the fashion of Avocets; and their nests, in much the same fashion, consisted of weed-fragments carelessly built up on the mud.

[1] The Condor, Vol. XXI., Jan. 1919, p. 37.

It is easy to picture a time when Willets were ten times more common than they are at present; and if only men will content themselves with honest beef and mutton, instead of hankering after strange and doubtful dainties, we may live to see such a time again.

Taken in Santa Barbara *Photo by the Author*

A CAT-NAP

No. 249

Wandering Tattler

A. O. U. No. 259. **Heteroscelus incanus** (Gmelin).

Description.—*Adult in summer:* Above uniform brownish slate (chætura drab); a white superciliary, broken behind; shaft of first primary chiefly white; underparts white as to ground, everywhere marked with color of back (chætura drab to hair-brown), most lightly on throat and crissum, in heavy streaks on fore-neck, in wavy bars on breast, sides, and flanks; axillaries and part of wing-lining pure drab. Bill greenish dusky; feet yellowish dusky. *Adult in winter:* Similar, but nowhere barred save on under tail-coverts and lining of wings; throat and belly white, the drab of remaining underparts confluent as solid shading. *Immature:* Like adult in winter, but scapulars, tertials, and upper tail-coverts, indistinctly spotted with white, and sides faintly mottled with white. Length about 279.4 (11.00); wing 176.7 (6.95); tail 76.2 (3.00); bill 39.4 (1.55); tarsus 33 (1.30).

Recognition Marks.—Killdeer size; uniform dark coloration distinctive; *tew tew* notes; frequents rocky shores.

Nest and Eggs unknown.

General Range.—Breeds from south-central Alaska to the Macmillan River in Yukon, and south along rocky coasts, probably to Washington. Winters throughout Oceanica and on islands along the Pacific Coast of America from southern California to the Galapagos.

Distribution in California.—Common spring and fall migrant touching upon exposed and rocky portions of the coast and the islands. Sparingly resident in winter upon the Santa Barbara Islands. Malingerers, presumably non-breeders, occur throughout the summer.

Authorities.—Cooper (*Heteroscelus brevipes*), Am. Nat., vol. iv., 1871, p. 758 (Monterey); *Henshaw*, Geog. Surv. W. 100th Merid., 1876, p. 272 (Santa Cruz Id., habits, actions); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 48 (s. Calif. ids.); *Grinnell, Bryant, and Storer*, Game Birds Calif., 1918, p. 422 (desc., occurrence, habits, etc.).

WANDERING TATTLERS

TO CHRISTEN a bird "wandering" is to make all birdmen godfathers in interest; for what about any bird more captivates the imagination than its disposition, and ability, to wander? This Tattler should be the patron saint and emblem of all who love the wild, and especially of those who, having once been upon the bosom of the broad Pacific, feel evermore the ebb and flow of salt water in their veins. Attu, Shamshu, Baranoff, Laysan, Marcus Island, Odgovigamut—these are all the same to *H. incanus*. His grip is always packed and his ticket always purchased for whatever clime, rock, or strand he takes a fancy to. Nor need he

travel *all* alone. "What say, dear, shall it be the Shumagins this summer? or a little cabin on the Tschuktschi?" There is a proposal *a la mode* for you, and the heart grows faint with desire to follow.

The Wandering Tattler is known to summer in Alaska, and is supposed to breed in the vicinity of interior lakes and streams, but its nest has not yet been taken.

Returning south to winter along our coasts, the bird reaches us sometimes by the 20th of July; while the spring migrations are more or less obscured by the fact that non-breeding birds linger irregularly throughout the summer. Wherever it ranges, the Wandering Tattler haunts the barnacle-covered rocks and tide-swept reefs of the wilder shores, and itself appears but a detached fragment of this somber substance. When frightened, the bird flushes with a quavering cry, somewhat like the *tew tew tew* of the Greater Yellowlegs (*Neoglottis melanoleuca*), but more subdued; and when it alights, it sits for some time motionless in a plover-like attitude, with its long bill held horizontally, invisible in the dull light of a foggy day, unless, perchance, outlined against the surf. At other times the bird will betray its uneasiness by a rapid jetting motion of the tail. The surf has absolutely no terrors for this intrepid bird. I have seen a sudden wave snatch him off his feet and bury him in an awful smother of foam; yet when the dazzling whiteness dissolved enough for vision, the bird was disclosed, looking dry and saucy, on a rock a dozen feet away. How he managed it I do not know, for that comber would have smashed a dory to splinters.

Those who have been fortunate enough to visit the Farallon Islands in May count the Wandering Tattler one of the most prized members of their avian pageant, and the one best fitted to symbolize the wild isolation of the group. Here their daylight hours are spent religiously upon the eternal bug-hunt, but as night approaches the birds come well ashore and crouch like devotees behind such boulders as will shield them from the merciless wind.

For the most part the Wandering Tattler, like Kipling's cat, prefers to walk by himself. Kindred tasks, however, sometimes throw him into the very tolerable company of Black Turnstones; and Spotted Sandpipers are sometimes treated like younger brothers who need a little looking after. On Santa Cruz Island the winter shore-line appears to be portioned out roughly among such curiously assorted pairs, and one expects to see a Piper and a Tattler, rather than a pair of either, on a given headland.

No. 250

Bartramian Sandpiper

A. O. U. No. 261. **Bartramia longicauda** (Bechstein).

Synonyms.—"The Bartramian." Upland Plover. Field Plover.

Description.—*Adult:* Above, varied brown or dusky with a slight olive tinge, the feathers edged with ochraceous-buff, and on the back, etc., spotted and barred with black; top of head blackish, parted by indistinct buffy median line; hind-neck buffy or ochraceous, streaked with dusky; primaries dusky, the outer one with a white shaft, and white strongly barred with dusky on the inner web; tail irregularly barred with black, the central feather olive-dusky, the outer ones ochraceous and gray; underparts whitish or with buffy tinge on breast, sides, and crissum; the fore-neck sharply streaked with brownish dusky; the markings U- or V-shaped on breast and opening out into bars on the sides; axillars and lining of wings finely barred dusky and white. Bill yellow, blackening on ridge and tip; feet and legs dull yellow. *Immature:* Similar to adult, but buffy and ochraceous stronger, and dusky markings of underparts less distinct. Length 285.8-323.9 (11.25-12.75); wing 162.6 (6.40); tail 71.6 (2.82); bill 30.5 (1.20); tarsus 45.2 (1.78).

Recognition Marks.—Killdeer size or larger; bill somewhat shorter than head; finely streaked and mottled coloration, ochraceous and dusky. A bird of upland and prairie. Notes, a quavering alarm cry, and a mellow whistle long-drawn-out.

Nesting.—Not known to breed in California. *Nest:* On the ground, a grass-lined hollow. *Eggs:* 4; ovate, pale olive-buff, tilleul buff, ivory yellow, or pale clay-color, spotted sharply and rather sparingly with deep reddish brown, umber, chocolate, and violet-gray. Av. of 23 eggs in the M. C. O. coll.: 43.7 x 32 (1.72 x 1.26); index 73.2. *Season:* June; one brood.

General Range.—North and South America. Breeds in the northern United States from northern Virginia, southern Indiana, southern Missouri, southern Oklahoma, northeastern Utah, and (an isolated colony?) southern Oregon, north to southern Maine, southern Quebec, southern Michigan, Manitoba, southern Mackenzie, and northwestern Alaska (E. K. Townsend). Migrates through Middle America and the West Indies to Argentina and Chile.

Occurrence in California.—Casual migrant, one record, Aug. 8, 1896, by Vernon Bailey.

Authorities.—**Cooke** (*Bartramia longicauda*), U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 65 (Tule Lake, Aug. 8, 1876, 1 spec.).

THE UPLAND PLOVER is not rated as common anywhere west of the Rocky Mountains—though there is some evidence that the bird is gradually extending its range into the inviting agricultural areas of Idaho and Oregon. The bird loves meadows and upland pastures quite as well as it does its native prairie unadorned, and if only our frail race knew how to resist the temptations afforded by such an easy mark, this handsome Plover might eventually gladden our Western farm life.

Like a benediction from heaven comes that stirring, rolling, long-

drawn whistle with which the bird greets from on high the sight of its remembered pastures in springtime. Hearing it, the farmer boy straightens at his task and remembers that he, too, though born of the soil, was born to lofty things. Clods find their voices in skylarks, and a wisp of prairie grass, dry and sere, has taken fire aloft in the Bartramian's song.

One appearance, deemed accidental, entitles this bird to recognition here; but if it does succeed in making headway in the West, one feels safe in predicting that it will first establish itself in the Surprise Valley, in Modoc County, where the Bobolink, most jubilant of songsters, has already found asylum, and where the Long-billed Curlew still lingers unrebuked. The bird is part sandpiper, part plover, to appearance, and its short bill will serve instantly to distinguish it from the well-known Sickle-bill (*Numenius americanus*), which it otherwise resembles in choice of range and in general economy.

No. 251

Spotted Sandpiper

A. O. U. No. 263. **Actitis macularia** (Linnæus).

Synonyms.—PEET-WEET. TIP-UP. TEETER-TAIL.

Description.—*Adult in summer:* Upperparts light olive-brown with pale greenish or brassy luster; the head and neck streaked, and the back, scapulars, tertiaries, etc., irregularly barred with darker; quills darker and with more distinct greenish reflections; the inner primaries and secondaries narrowly tipped with white, the former varied with some white on the inner webs, the latter with much basal white, showing conspicuously in flight; central tail-feathers like back, but greener, the outer feathers becoming duller and tipped with white; a white superciliary line; entire underparts white and strikingly marked with rounded spots approaching color of back; axillars pure white. Bill flesh-color, sometimes orange, darkening above, or not, and with dusky tip; feet and legs pinkish white. *Winter plumage:* Somewhat similar, but underparts immaculate; breast tinged with gray; back browner, unbarred. *Immature:* Like adult in winter; but showing blackish-and-buffy bars above, faintly on back, more strongly on wing-coverts and upper tail-coverts. Length 177.8-203.2 (7.00-8.00); wing 105.4 (4.15); tail 50.8 (2.00); bill 23.6 (.93); tarsus 24.1 (.95).

Recognition Marks.—Sparrow to towhee size; greenish brown back; boldly spotted underparts; the characteristic bird of river-bank and lake-shore.

Nesting.—*Nest:* On the ground, a slight depression, scantily or somewhat carefully lined with dead leaves and grass. *Eggs:* 4; ovate or pointed ovate; pale olive-buff, pinkish buff or light clay-color, boldly and coarsely spotted or else blotched and finely spotted with deep chocolate and a little violet-gray. Av. of 10 sets in M. C. O. coll.: 31.75 x 23.4 (1.25 x .92); index 73.6. *Season:* May–July; one or two broods.

General Range.—North and South America. Breeds practically throughout the United States, except the southeastern portion, north to the limit of trees. Winters

Taken in Siskiyou County *Photo by the Author*

LAKE ELAINE: A NESTING HAUNT OF THE SPOTTED SANDPIPER
MT. SHASTA IN THE DISTANCE

from southern California, Texas, and South Carolina, south to Brazil, Bolivia, and Peru.

Distribution in California.—Common migrant. Resident in summer along larger streams and upon lakes of the Sierra Nevada system, at least as far south as the Cottonwood Lakes (alt. 11,000) ("Spring" arrival, July 14, 1911), and irregularly along major streams of the coastal system south to Ventura County. Sparingly resident in winter upon the coasts and islands of the San Diegan district and in the valley of the lower Colorado River.

Authorities.—Cassin (*Tringoides macularius*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 735 (Ft. Tejon; Sacramento Valley; *Dwight*, Auk, vol. xvii., 1900, p. 372 (molt); *van Rossem*, Condor, vol. xxii., 1920, p. 39 (Kern Lake, Tulare Co., breeding).

THE TEMPTATION to try out nicknames on this, the best distributed and possibly the most familiar American Shore-bird, is almost irresistible. If I were given first choice, I would choose Bird-in-love-with-his-shadow—even though that be an augmented instead of a "nicked" name. Like a second Narcissus, this familiar little Sandpiper loves to linger at the water's edge; and even if it be conceded that he has other

business there besides looking in the mirror, we could not suppose that he is altogether insensible to the flattery of the smooth-flowing stream. It is for this reason, perhaps, that he prefers the vicinity of quiet inland or upland waters; and it is this also—what else?—that tempts him to make from time to time little horizontal excursions, or loops, of flight out over the river or placid lake. If frightened, as by a boatman, the bird may patter along the muddy brim, or remove by short flights, but sooner or later he puts off from shore, edges out over the water, wheels about in a great circle, and draws near his starting point again, in a graceful curve which regards the shore as a sort of asymtote—this on wings held stiffly, or quivering with emotion.

Taken in Modoc County *Photo by the Author*

BABY ALL ALONE

Peet-weet would be a second choice for a name, even though these petty syllables quite fail to express the emotional, vibrant qualities of the bird's cries, or the ringing clearness with which they resound from shore to shore. *Peeet weet, weet, weet, weet!* What "naturalized" Californian has not heard that endearing sound coming most unexpectedly from a river-bar in some wild canyon of the Sierras, or from the edge of some emerald lake nestling in the embrace of snow-banks? What! our little Peet-weet up here? How different these from the sluggish waters of the Piscataqua, or the prosaic shores of Bullhead Lake. Yet the voice is the same,—amiable, alert, sweetly piercing, authentic. It is the same bird, too, a fellow Easterner quite at home in this giddy, awful West. "Tip-up," or Teeter-tail, comes next, and the California bird is as little restrained in his actions by the presence of frowning Sierras as he was by the laughing birches of Vermont. Here, too, he has the never-ending habit of teetering: "The fore part of the body is lowered a little, the head drawn in, the legs slightly bent, while the hinder parts and tail are alternately hoisted with a peculiar jerk, and drawn down again with the regularity of clock work." This strange motion, which has won for the bird its most familiar trivial name, gives it also an air of mock solemnity,

which is only heightened by the Quaker drab adornment of the upperparts and the apparently serious view of life which the owner takes. Absurd as the action is in adults, it tests the risibles still more sorely when a toddling youngster, bristling with pin-feathers, discovers the same uncontrollable ambition in his rear parts, and says How-do-you-do backward, with imperturbable gravity.

Solitary Sandpiper would be a name most fitting, were it not already appropriated by *Tringa solitaria;* for of all Shore-birds the Peet-weet is least sociable *inter se.* Family parties, to be sure, hold together until the young are ready to fly. Indeed, I am not sure but that family ties here are the strongest of all—while they last. Your solitary heart loves deepest, and yearns for its own with the most abiding tenderness, even when its way lies apart. But a Peet-weet loves solitude, and the only grown person he will allow around is his mate, and here only so long as family responsibilities require. Each pair occupies a circumscribed stretch of territory, and will suffer invasion up to a certain boundary mark; but just as surely, each pair is happiest when it has a little lakelet or a mountain meadow all to itself. And, lastly, the name "Spotted" is a misnomer, applicable only for a certain portion of the year,—April to September, namely. In the winter season his breast is as guiltless of spots as Sir Gallahad's scutcheon. At this season also, when he frequents, or rather *un*frequents, our southern coast, love of solitude has become for him a madness. Although the bird is scarcely molested under pretense of its being game, we would think from the way it dodges a gun—even one held in the hand of an honest scientist—that the Spotted Sandpiper regarded himself as a very Curlew Sandpiper for rarity, or else that he was a train robber with a price upon his head. I have played peekaboo with these gentry for an entire afternoon, and then secured a specimen only under cover of darkness. These astute pipers frequent the wildest rocky points of our southern coasts and islands, and they brave the buffet of the surf as surely as *Aphriza* or *Heteroscelus* (who knows, by the way, but that these vaunted heroes of the surf are nothing better than brookside loafers at home?) When surprised—and he always gets up first—*Actitis* hustles out over the water as though he were heading for Patagonia. If you keep on your way, the chances are that the bird will describe a huge semilune, then hit a spot downshore on your own back track. Or, if you stand your ground, the brave piper is quite capable of sustained and leisurely flight over the water, where he skims close to the surface and follows the swell and fall of every wave, in the effort to tire you out, so that he may return to the identical spot he left.

No. 252

Long-billed Curlew

A. O. U. No. 264. **Numenius americanus** Bechstein.

Synonyms.—Sickle-bill. Hen Curlew.

Description.—*Adult:* General color ochraceous-buff (tilleul buff) to pale cinnamon-rufous (vinaceous buff or avellaneous); upperparts varied with dusky—in broad streaks on crown, in narrow streaks on sides of head and neck, in heavy central "herring-bone" connected bars on back and tertials, and so variously mottled throughout, only the outer webs of outer primaries being of solid color,—dusky; below sharply streaked on breast and sides, sometimes sparingly barred, with blackish, the ground-color reaching its greatest purity and intensity on axillars. Bill very long, considerably decurved toward tip; the culmen brownish dusky, the lower mandible yellow at base and darkening toward tip; feet and legs stout, dark; claws short and broad. Length 508-660.4 (20.00-26.00); wing 300 (11.80); tail 120 (4.72); bill up to 215.9 (8.50). Av. about 165.1 (6.50); tarsus 88 (3.46).

Recognition Marks.—About crow size—making some allowance for bill; pale cinnamon coloration; long decurved bill distinctive; quavering cry.

Nesting.—*Nest:* A rather deep grass-lined depression on ground. *Eggs:* 4; ovate, not sharply pointed, olive-buff, deep olive-buff, pale dull clay-color, or dull gray-green (vetiver green), spotted or sometimes blotched with sepia and deep brownish olive, or with under-shell markings of deep olive, citrine drab, grape-green and grayish olive. Av. size 65.5 x 46.5 (2.58 x 1.83); index 71. *Season:* April 15–May 15; one brood.

General Range.—North America. Formerly bred practically throughout the United States, including Florida. Range now restricted to western Canadian Provinces (central Saskatchewan to south-central British Columbia), the states west of the Mississippi River and the Gulf States; now breeding south to northeastern California, northern New Mexico, and northwestern Texas. Winters from California and the South Atlantic and Gulf States south to the West Indies and Guatemala.

Distribution in California.—Fairly common migrant east and west of the Sierras. Breeds in the northeastern plateau counties. Winters sparingly in the San Diegan district, in the central valleys, and near San Francisco. Not reported from the islands.

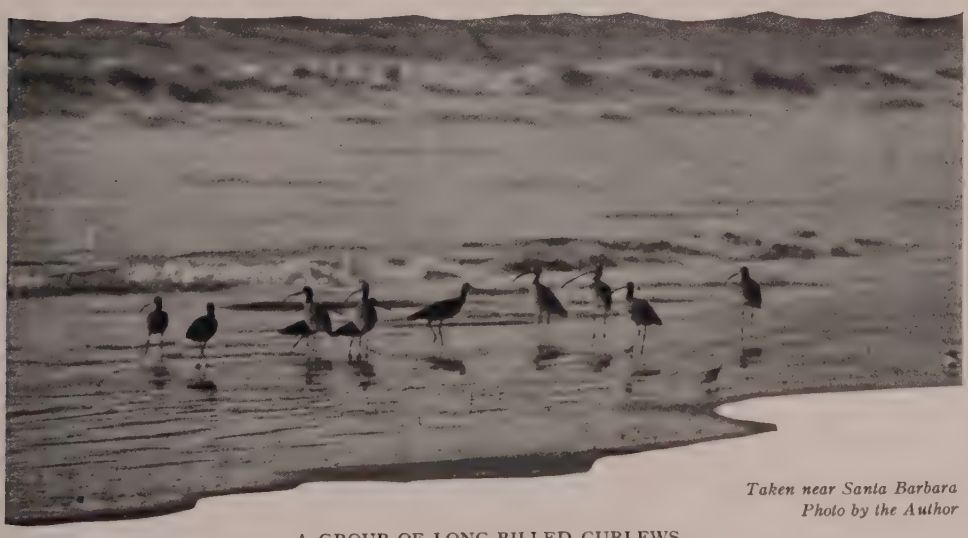
Authorities.—**Gambel** (*Numenius longirostris*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 223 (Calif.); *Feilner*, Ann. Rep. Smithson. Inst. for 1864 (1865), pp. 423, 428 (Butte Valley, Plumas Co., desc. nest, eggs, habits); *Shufeldt*, Jour. Anat. and Physiol., vol. xix., 1884, p. 51, pls. (osteology); *Grinnell*, Condor, vol. xxiii., 1921, p. 21 (syst., crit.).

THE LONG-BILLED CURLEW, or Sickle-bill, is by reason of being a little the largest, justly accounted the dean of the American Shore-birds. Indeed, it shares with the common Curlew of Europe, *Numenius arcuatus*, the honor of being the largest of the world's *Limicolæ*. Formerly abundant throughout the West, and especially in California, the species is known now as a sparing winter resident along our northern

coast and in some of our interior valleys. A diminishing few remain to breed in the plateau counties of the extreme northeast, but there appears to be only one authentic record of eggs taken within the limits of the State.

Those that winter with us upon the beaches associate more or less with "Jacks," *Phæopus hudsonicus*, and Marbled Godwits. From the latter they may, of course, be readily distinguished by their longer, decurved beaks; and from the former not alone by the bill, but by a different way of carrying it. The Long-bill, having an easier reach, does not stoop so abjectly in gleaning sand-fleas; and at rest he stands habitually more upright, with head thrown further back, a position necessitated by the increased weight of the bill. The Long-bills have much the same habits as the Jacks, feeding and resting upon the upper beach, and running down to the water's edge when frightened.

Now that the persecution of gun-fire is measurably reduced, owing to federal enactment, our Shore-birds would get on well enough with us humans, if only we would play fair. But what elemental savage, however well dressed, can abide the presence of possible meat stalking in wary dignity before his face and eyes? "Sniping" still goes on remorselessly; and if guns are not at hand, stones suffice to keep the birds in an agitated condition. Saddest of all is the relentless usurpation of the shore-line. We must, forsooth, see every wave there is to see, either from the depths of our whirring limousines or from improvised lunching stations. The result is that there is scarcely a square yard from Point Conception to San Diego that a bird dare call its own, or upon which it is free from noise, fright, or stealthy attack. Yet in this thoughtless usurpation we



Taken near Santa Barbara
Photo by the Author

A GROUP OF LONG-BILLED CURLEWS
ALSO CONTAINS TWO MARBLED GODWITS

are wasting our own heritage and fouling our own fountains of interest; robbing ourselves of joy in life, as well as driving the birds out to a shoreless sea, and sunset.

Those which have successfully wintered somewhere in the South return to their interior breeding grounds along about the first of April. At this season the Curlews move in large flocks, sometimes to the number of a hundred or more, in continually shifting lines and A-shaped figures—like the geese, in that some experienced leader maintains a position at the front. Although wary and difficult of approach, save at the nesting season, clumsy efforts at imitation of their quavering call will serve to bring the birds up eagerly. Once within range, the Curlews are so overcome with solicitude for their fallen comrades that they are exposed to repeated attack until the hunter is satisfied. The "wagon-loads" reported from the Columbia River Valley in an earlier day were, unfortunately, no exaggeration, and the ranchers of the central West, who still occasionally see a Curlew, may not realize how fearfully their ranks have been depleted.

Save in the fall of the year when the birds are fat, the flesh is tough and dry, and in many cases positively unpleasant. But if it tasted like twisted artemisia fibers, frail human nature could hardly endure to see so large a bird and such an "easy" mark flourish unmolested. Kill it, by all means, and thus fulfil the destiny of budding manhood! The best opportunity is afforded when the bird alights and pauses for a moment with uplifted wings, a yacht of the desert come to anchor at the ancestral roadstead.

During the nesting season, the Sickle-bill throws caution to the winds, and hurries forward to meet a prospective intruder with protesting shrieks. If the newcomer be really curious as to the whereabouts of the nest, both birds will circle and flap and hover and vociferate until one might think that Bedlam had broken loose. The extraordinary bill of this bird, sometimes eight or even nine inches in length, serves admirably as a pair of chop-sticks, and will pick up a weevil as deftly as a Chinese a grain of rice; but as a vehicle of emotion the vibrating mandibles are deliciously absurd. *Kerer er-er uk, ker er-er-er-uk* comes torrentially and unceasingly from the anxious throats until one feels forced to join in the excitement, hysterically. Shoo! you yawping termigants, you!

The nest is a mere grass-lined depression in the ground of pasture or hillside, and may or may not have convenient access to brook or lake or swamp. The eggs, normally four in number, may be found by the 20th or even the 15th of April. They are the size of large hens' eggs, pale buffy-brown or clay-colored, variously spotted and blotched with a rich dark brown, and sometimes exhibiting traces of violet outcropping from the deeper strata of the shell. Only one brood is raised in a season.

In July, 1912, I found these Curlews breeding near Eagleville in the Surprise Valley. It was, of course, way past hatching time, but the birds were warily anxious for their young, and in the flooded meadows adjoining Lower Lake one might see six or eight birds in the air at a time, some quavering and some whistling. The normal notes, unlike the harsh expletives of near contact, are musical and weirdly beautiful, authentic supertonic of the wild, which we can ill spare from our blighting and decorous civilization. It is high time to retire this quaint and interesting fellow from the list of putative "game birds" and to afford him absolute protection. The struggle for existence will be hard enough for him at best under the new conditions, without our compassing his absolute destruction merely that a few more light-hearted pots may boil. Curlews are still common in a few spots where they have been wont to assemble for migrations, but their total numbers have certainly been reduced to less than one-tenth, probably nearer one-twentieth, of their former proportions. What will be the use of life after the living are gone?

No. 253

Hudsonian Curlew

A. O. U. No. 265. **Phæopus hudsonicus** (Latham).

Synonyms.—Jack Curlew. "Jack." American Whimbrel.

Description.—*Adult:* Above blackish brown or dusky, spotted, streaked, and barred with ochraceous buff; crown nearly uniform blackish with broken median stripe of buffy; primary coverts and exposed webs of outer primaries black, the shaft of the first primary white, the inner webs of the outer primaries and both webs of the inner primaries and the secondaries deeply indented with ochraceous; upper tail-coverts and tail barred with blackish and gray-ochraceous; underparts ochraceous-buff (tilleul buff to vinaceous-buff); immaculate on chin, throat, and belly; sharply streaked with dusky on sides of head, on neck all around, and the fore-breast; elsewhere wavy-barred with dusky, heavily on sides of breast, sharply and regularly on axillaries; lightly on flanks and under tail-coverts. Bill decurved, blackish above, lightening at base of mandible; feet and legs black. Length 419.1-457.2 (16.50-18.00); wing 247.6 (9.75); tail 100 (3.94); bill 88.9 (3.50); tarsus 57.9 (2.28).

Recognition Marks.—Small crow size; mottled and streaked, dusky and pale buff; rather stout *decurved* bill of *moderate* length; broad, blackish crown-stripes; beach-haunting habits.

Nesting.—Does not breed in California. *Eggs:* 3 or 4; much as in preceding species. Av. size 57.7 x 38.9 (2.27 x 1.57).

General Range.—Breeds in Alaska from the mouth of the Yukon River and along the Arctic Coast of North America. Migrates south chiefly along the Atlantic and Pacific coasts through Mexico and the West Indies to the Galapagos, Chile, and Brazil.

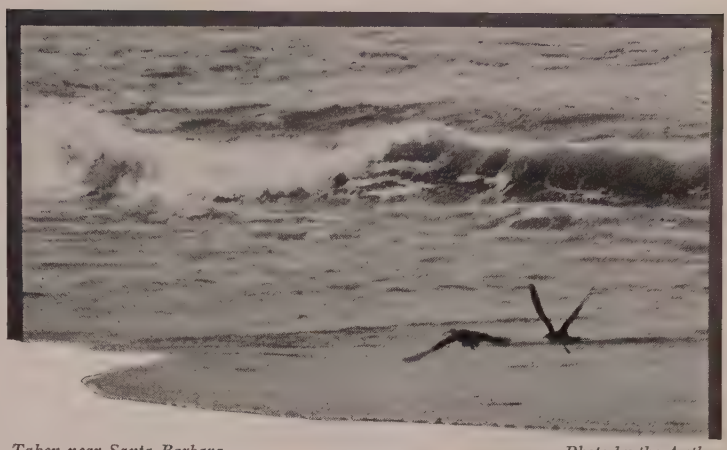
The Hudsonian Curlew

Distribution in California.—Abundant spring and fall migrant, chiefly coastwise, but also at various interior points: Dos Palos, May 22, 1914, May 22, 1916; Salton Sea, Apr. 27, 1917; Bishop, May 29, 1919. Returns to (Ventura County) coast by July 10th. Casual in winter: Santa Cruz Island, Dec. 8, 1907 (Linton); Santa Barbara, Dec. 26, 1914.

Authorities.—Cassin (*Numenius hudsonicus*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 744 (Presidio); *Grinnell*, Pac. Coast Avifauna, no. 1, 1900, p. 27 (n. Alaska; breeding habits, nest, eggs, etc.); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 30 (San Joaquin Valley; habits).

KNOWN only as a migrant, the Hudsonian Curlew, or "Jack," as he is affectionately called, is one of the most familiar and picturesque features of California beach life. The Jacks are wary without being unreasonable about it. A little artifice of approach will ensure a coveted "specimen"; but slaughter is, fortunately, a difficult matter and the price one inevitably pays for any display of firearms is the forfeiture of Curlew confidence along that immediate stretch of coast. Since Jack's tenure of the beaches is coincident with the period of our own greatest interest, viz., in July and August, it is rather important that we understand each other. The Curlews ask only to be let alone, and if one will really mind his own business while at the beach, he may have most rewarding views of these feathered gentry as they sidle toward the quiet watcher, or "cross his bows" between the upper beach and the surf.

Taken near Santa Barbara TWO SANDERLINGS ARE INCLUDED *Photo by the Author*



Taken near Santa Barbara *Photo by the Author*

ALARM

Left to themselves, the Curlews will often while away a month or so at a given station, even though they have hailed from Alaska and are bound for Ecuador. At such times they seem to be really resting up after the ardors of intense domestic experience, crowded at times into a period of six weeks, in the high North, and the labors incident to a journey the first leg of which has already measured 2000 miles. The Curlews deploy, then, upon the dry sands of the upper beach and either potter about on listless lookout for passing insects, or else squat upon the sand, tuck bill under wing, and lose themselves in dreams. There is always at least one wary fellow on guard, however, and let but the smallest appearance of motion, be it only a khaki hat, break the purity of the sky line among the attendant sand dunes, and a quaver of warning puts the scattered flock on guard. Sleepy heads are stealthily withdrawn; the birds rise slowly and begin to creep toward their leader, their neutral-colored bodies scarcely distinguishable against the background of sand; and all meanwhile scanning the horizon for the danger sign. If the alarm spreads, all run down the beach slope for a quick take-off, pass over the surf line, and then parallel the shore with moderate, firm wing-strokes until a safe distance has been reached.

The major portion of the Curlews' fare is also served on the beaches. Although they do sometimes glean at the water's edge, they are fonder of following the drift line where the Talicrid amphipods have burrowed in the sand. These sand-fleas are secured not alone on the surface by agile pursuit, but they are haled from their sandy lairs. The Curlew does not bolt his prey on faith, but he flings it down upon the beach for a glance of inspection. The crustacean promptly attempts to decamp, and the bird plays cat-and-mouse with it until it is subdued, or possibly until it is *shaken free of sand*, before he will condescend to swallow it. The general scene of these spirited operations bears witness after the birds have fled, for the sand is stippled by the proddings of a thousand beak-strokes. Other food—seeds, berries, grasshoppers and other insects—is secured about the brackish lagoons; and in the alternation of these pursuits there is never wanting variety in the Curlew day.

The Hudsonian Curlew

Taken in Santa Barbara
Photo by the Author

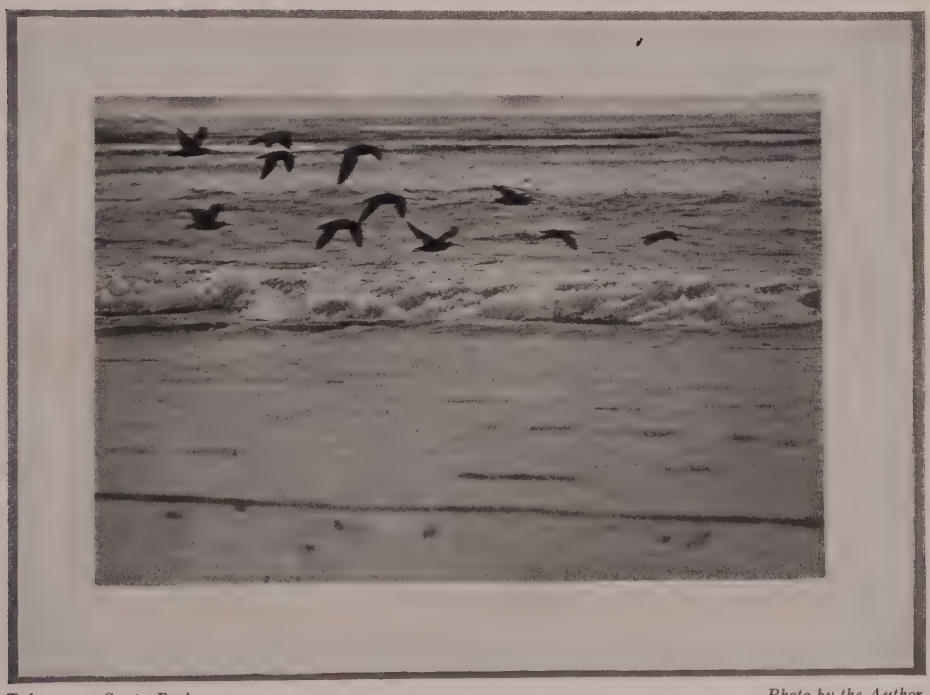
AS SEEN FROM THE TOP OF THE CLIFF

Hudsonian Curlews are among the earliest of returned arrivals from the northern breeding grounds. Willett, speaking for southern California, says[1] that they appear about the first week in July, and that by July 10th they are abundant along the beaches. I am usually away in the mountains during June and early July, but I have returned in time to see a flock of twenty on July 10 (1919), and have found them abundant along the Santa Barbara coast by July 22nd. They linger till late October, and I have seen a few stragglers in winter. The spring migrations are said to begin in late February (Tyler) in the interior, but I have never seen the birds at Santa Barbara before April, and the period of maximum abundance is the first week in May. Birds seen in June are probably stranded non-breeders; but I take it that two birds seen near Bishop on May 29th, 1919, had merely lost their way and turned up on the wrong side of the Sierras.

Concerning the notes of the Jack we will let a devoted admirer, Mr. John G. Tyler, bear witness:[2] "There are no birds with which I am acquainted that can compare with these splendid waders in the rich musical quality of their voices. On the last day of one April I encountered a large flock of curlews in a grain field, part of which was being flooded at the time with irrigation water. In one place there was an area of probably five acres that was covered with water to a depth of several inches. The surrounding higher ground supported a considerable growth of stubble left

[1] Pac. Coast Avifauna, No. 7, 1912, p. 39.
[2] *Ibid.*, No. 9, 1913, p. 30.

standing from the harvest of the preceding summer. Approaching to within sixty yards of the big fellows, as they stood bunched at the water's edge, I concealed myself as best I could and enjoyed an opportunity to become better acquainted with these most interesting birds. The nervous lispings, that at my approach threatened to break into the clamorous, screaming flight calls, finally subsided and the birds fed and waded about in the water or preened their feathers while standing stork-like on one leg. Suddenly I was thrilled with a medley of subdued pipings so marvelously sweet and musical that I could hardly believe the sound came from my flock of curlews. The faintest whispering it seemed, yet the liquid melody was really far-reaching and was, as I afterwards learned, distinctly audible from a distance of a quarter of a mile when atmospheric conditions were favorable. A strange nervous unrest seemed to affect the entire group on the ground. The whistlings became louder and the cause was suddenly revealed to me when a curlew call from overhead drew my attention to a flock of new arrivals, nine in number, that were circling preparatory to joining the company at the pond. My surprise and admiration knew no bounds when I realized the sublime heights at which these travellers through the sky had been flying. Mere specks they appeared, and yet their melodious call rang clear and distinct."



Taken near Santa Barbara JACKS IN FLIGHT *Photo by the Author*

No. 254

Black-bellied Plover

A. O. U. No. 270. **Squatarola squatarola** (Linnæus).

Synonyms.—Beetle-head. Bull-head. Ox-eye. Helvetian Plover.

Description.—*Adult in summer:* In general black (below), white (laterally and circum-posteriorly), and black-and-white (above). Lower eyelid, forehead, sides of crown, neck, and breast, flanks, lower belly, crissum, lining of wings, and upper tail-coverts white, the last-named lightly barred with blackish; sides of head and remaining underparts sooty black to jet black; axillars sooty black; above chiefly black, varied by gray (hair-brown) and white tips, the gray prevailing on the fore-crown, gray and white on the wing-coverts; primaries dusky brown with large basal areas of white, and distal portion of shaft (increasing inwardly) white; tail black and white barred. Bill and feet black. *Adult in winter:* Quite different. Black of underparts wanting, *except on axillars*, white instead; the white pure on chin and throat, lower breast, belly, crissum, flanks, and lining of wings; elsewhere finely streaked or mottled or shaded with dusky, above grayish dusky, spotted and tipped with white. In respect to this spotting interminable differences occur, but a finely checkered pattern prevails. *Immature:* Similar to adult in winter, but head and neck streaked and back spotted with yellowish buff. Length 266.7-304.8 (10.50-12.00); wing 203.2 (8.00); tail 76.2 (3.00); bill 30 (1.18); tarsus 47 (1.85).

Recognition Marks.—Killdeer size or larger; black and white in broad design, and without *distinct* yellow above. (The buffy spotting which appears on the upper plumage of immature birds is, however, to be particularly remembered. Reports of "Golden Plovers" seen in California usually simmer down to young Black-bellies). Below black (in summer) or nearly white (in winter or young); *axillars black* at any season. Similar to succeeding species but larger; bill and head larger; presence of hind toe distinctive.

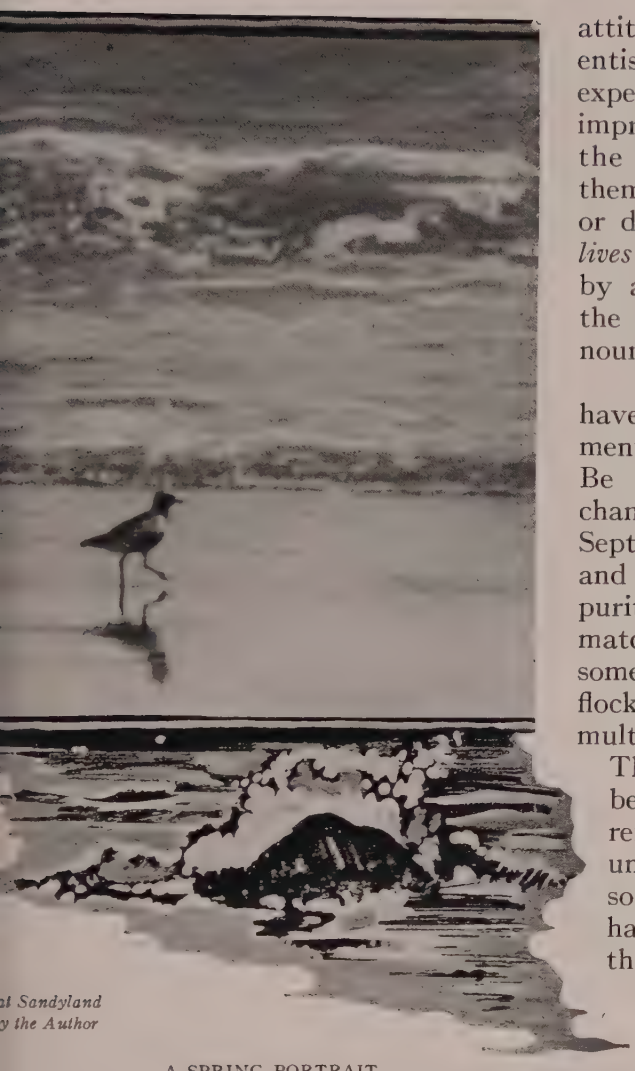
Nesting.—Does not breed in California. *Nest:* On the ground, or a hollow in tundra moss. *Eggs:* 3 or 4; light or dark buffy olive, heavily speckled and spotted with dark browns or blacks. Av. size 51.8 x 36.3 (2.04 x 1.43).

General Range.—Nearly cosmopolitan, but chiefly in the Northern Hemisphere, breeding far north and migrating south in winter; in America to the West Indies, Paraguay, and Peru.

Distribution in California.—Common spring and fall migrant; less common winter resident, coastwise. Occurs irregularly in the interior, even in winter.

Authorities.—**Gambel** (*Squatarola helvetica*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 220 (coast of Calif.); *Dwight*, Auk, vol. xvii., 1900, p. 383 (plumages and molt); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 78 (distr. and migr.); *Bowles and Howell*, Condor, vol. xiv., 1912, p. 10 (Santa Barbara; migr. dates).

IN THE APPRECIATION of Nature everything depends upon the point of view. Thus, our attitude toward the Black-bellied Plover may be that of the artist, the sportsman, the farmer, the economist, or the scientist. It may be each of these in turn, or all together, or it may be something better still. It may be the friendly, sympathetic, penetrative



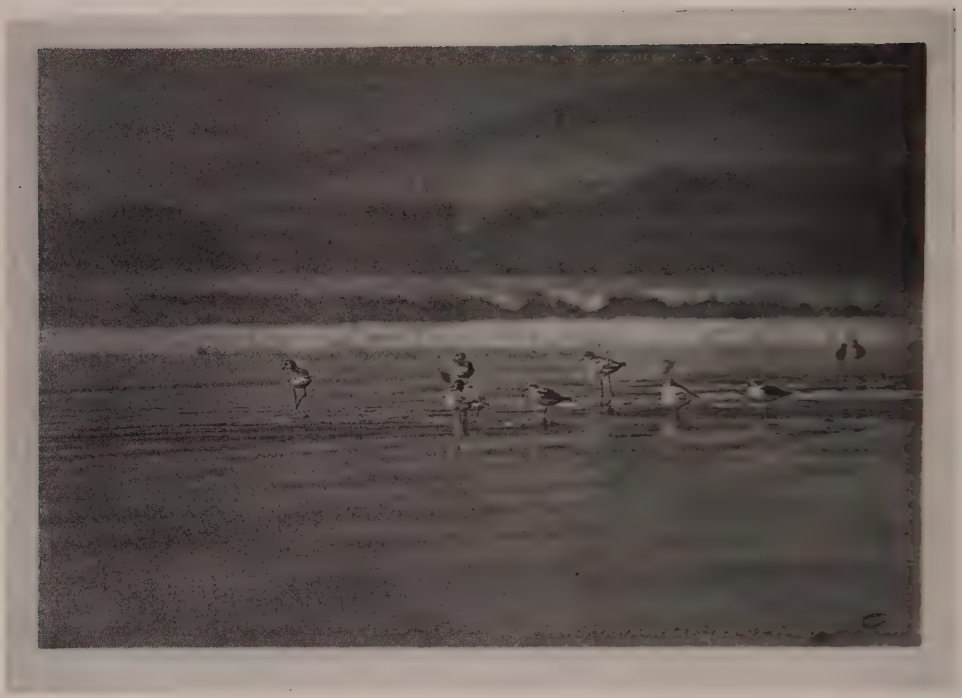
at Sandyland
by the Author

A SPRING PORTRAIT

attitude of the bird-lover. The scientist acquires facts; the sportsman, experience (of a sort); the artist, impressions, or visions of beauty; the economist mediates between them all and passes sentence of life or death; but only your bird-lover *lives* his birds. He it is who enters by an effort of sympathy into all the aspects of nature, and pronounces them good. He knows.

The artist, I submit, ought to have the first chance to pass judgment on the value of our plovers. Be the waters of Santa Barbara channel never so blue, as on this September day, the shore golden, and the air vibrating with conscious purity after two thousand leagues of matchless ablution, there yet lacks something in the vision unless a flock of Beetle-heads, splendid, tumultuous, is hurrying across the sky. The strand, glistening though it be with each fresh silvering of the refluent wave, is a barren mockery unless it may reflect the beauty of some Shore-bird. And what more haughty image may it give back than this plover in his nuptial panoply of black? Or what more modest and demure than the dove-like "grays" of autumn? If it were to paint a portrait in the narrowest sense, the painter could hardly do better than depict that large, gracious eye, that "beetling," capable brow, or that expression, half naïve, half stern, and altogether powerful, which greets the fortunate student on an unexploited shore.

But the sportsman has long claimed this bird for his own. Its numbers mark it for the pot, while its increasing wariness invites genteel destruction. Sapid its meat unquestionably is, tender, and well-conditioned in the early fall. Its northern residence has assured the bird



Taken at Sandyland *Photo by the Author*

GRAY PLOVERS

a heavy blanket of fat, a traveler's larder, which supplies the needful caloric consumed by the powerful pectoral muscles until the bird is safe within the tropics. These plovers respond to decoys, and may be "tolled" in by the easily imitated whistle. It is, however, one of the wariest of birds to eye, under persecution; and from the circumstance of its migrating chiefly along the sea-coast, where it is able to put out in case of danger, it has measurably escaped the doom which has overwhelmed many of our Shore-birds.

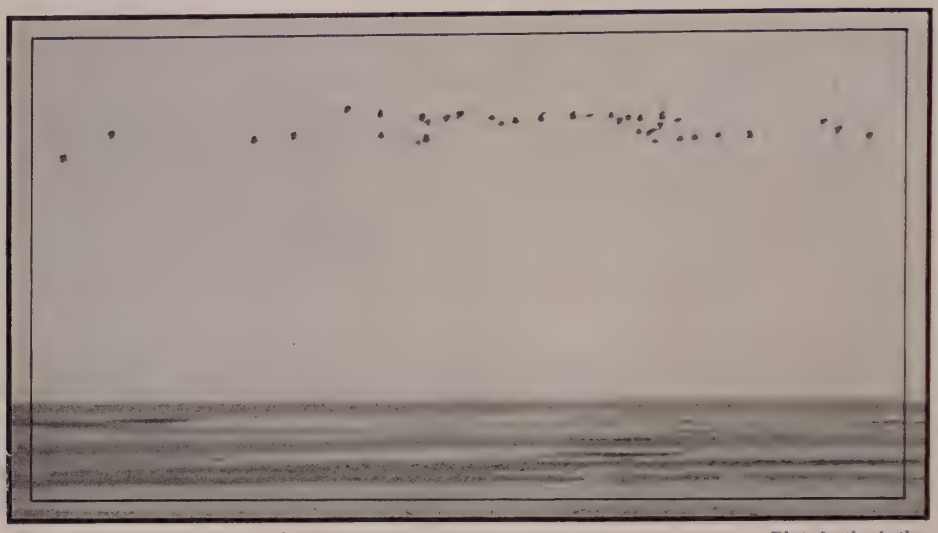
The economist finds nothing to condemn in the habits of the Beetle-head, and something to commend in that it feasts heavily upon grass-hoppers as often as it visits the uplands. It is with us, however, chiefly a beach bird and, according to Knight, its food "consists of small mollusks, worms, small crustaceans, brittle-stars, small holothuria, and similar material left by the ebbing tide, varied by more or less insects and larvæ picked up in the marshes at high tide." I have myself seen them seize pieces of kelp stranded upon the beach and thrash them about, apparently for the purpose of dislodging clinging mollusks. At other times they will feed furtively, by little snatches and quick recoveries, as they retreat along the beach.

The scientist knows that *Squatarola squatarola* is nearly cosmopolitan in its range, although it breeds only in the Arctic zone; that it is closely related to plovers of the *Charadrius* group, from which it is separated only by the trifling circumstance of having a tiny hind toe; but he does not know, apparently, any good reason why it should ever have been called the Helvetian or Swiss Plover, since it neither breeds nor winters in that tiny republic of glaciers. Many other things the scientist is ready to offer, but we are anxious to reach the accepted domain of the bird-lover, and

Taken at Sandyland *Photo by the Author*

THE PLOVER AS BIG BROTHER

to declare that the bird belongs to us and to us alone, by right of sympathy. Only by the give and take of friendly pursuit, or by quiet observation, may one come to feel really acquainted with any bird. The Black-bellies are very wary with us upon arrival from the north, during the last week of August or early in September. A hat-brim thrust over the edge of the sea-cliff will send the flock scurrying seaward. They are somewhat more tolerant of an unconcealed approach along the beach, merely taking the precaution to quit the upper beach and to draw together. At times they will gather at the water's edge and endure some buffeting by the waves before taking flight. On wave-swept ledges I have seen them rise before



Taken near Santa Barbara *Photo by the Author*

A DISTANT PASSAGE

the wave and settle again, after the fashion of Turnstones, quite determined to hold their own.

In taking flight, at leisure, the plover is quite sure to stand a moment with uplifted wings—to shake out the sails—before casting off. This reveals the black axillary feathers, which are a distinguishing mark of the species at all seasons. If possible, a little run precedes the flight, preferably down the beach slope. Again on alighting, the sails are held aloft for a moment if the footing is narrow; but if there is room for a run, the bird checks its momentum with the feet instead.

Purposeful pursuit makes the birds suspicious, and I have spent a half day with the camera without getting nearer than thirty yards of them; while my boys, engaged meanwhile in excavating a sand fort, declared the birds came within ten feet of them. I got even with this bunch of birds, though. Noting a considerable flock resting at a distance along the lower sands, I stripped off and went into the ocean, paralleling the shore until opposite the plovers, and then letting the waves wash me in like a stranded seal pup, until I lay within twenty feet of the nearest birds. I was near enough to catch the gentle curiosity and apprehension in their eyes. Some actually drew nearer to this plaything of the billows; but most of them held back haughtily, as though divining a disguise. There were other species of Shore-birds in the flock, and it was the Snowy Plover who, as host and rightful guardian of the beach, felt the most responsibility, and pressed close to riddle my Neptunian sham. Never a merman so blushed before a court of kelp maidens—blushed and gloated.

The association of species, "mixed companies," is a familiar feature of Shore-bird life, and the Black-bellied Plover is one of the most sociable of the friendly family. In their local movements they will tolerate any of the lesser sorts, but their preference for the Sanderling is rather marked, especially in the case of a single bird. The little urchins troop at the heels of their larger protector and dog his steps, when one would suppose that he would far rather enjoy the company of his own kind. But the Beetle-head appears to accept his responsibility good-naturedly, and it is probable that the schoolboy rout and its chosen leader do off great distances together. The Black-bellied Plover, also, is the only Shore-bird I know which will not give heed to the extravagant alarms of the Killdeer. *Squatarola* forms his own judgments of right and wrong, and acts accordingly.

The note of this Plover is a drawling and somewhat melancholy whistle, *we'-u-we* or *hee'-oo-ee*, descending to a lower pitch in the second note, and returning with a softer utterance on the last. This liquid sound, for all of its mournful tinge, is one of the sweetest in nature; and it takes no stretch of the imagination to picture a wooing conducted in such dulcet tones. But in the South, this note is usually heard just before or immediately after the birds take wing, and is evidently a note

Taken near Santa Barbara
Photo by the Author

BATTALION DRILL

THE REVIEWING OFFICERS ARE BLACK-BELLIED PLOVERS, WHILE SANDERLINGS ARE THE SOLDIERS

of alarm rather than of invitation. It is easy enough to reproduce, and I have tried it on many flocks, but it seems always to make them immediately apprehensive, as do their own renditions. Once a flock, which had previously shown little uneasiness in my presence, took instant flight when I sprung this "call" on them. The joke was on the birdman.

No. 255

American Golden Plover

A. O. U. No. 272. **Pluvialis dominicus dominicus** (Müller).

Synonyms.—Field Plover. Bull-head.

Description.—*Adult in summer:* Above dusky, blackening on tips of feathers on back and crown, lightening to fuscous on wing-coverts, tertials, sides of neck, etc.; spotting sharply on back and crown, less distinctly on neck and upper tail-coverts, with bright ochre-yellow; primaries blackish, the basal and a concealed distal portion of each quill white; tail dusky, barred irregularly with lighter grayish brown; entire underparts, except lining of wing, including sides of head, glossy brownish black; an area of pure white continuous across forehead passes over the eyes, along the sides of the neck, and expands on the sides of the breast, sometimes nearly meeting in front; sides of breast, and connecting upper sides narrowly, behind the white, color and pattern of back; axillars and lining of wings smoky gray or ashy. Bill and legs black. *Adult in winter:* Usually less decidedly black on back; the spotting (streaking on hind-neck) finer on upperparts; the ochre-yellow brightest on upper tail-coverts; elsewhere more or less displaced by paler yellow and whitish; below without black; throat and crissum dull white; elsewhere streaked and spotted with light brownish gray, a lighter shade of the same vaguely diffused over the plumage, or else underparts definitely brownish gray finely spotted with white. *Immature:* Like adult in winter, but lighter below; only the breast tinged, and that uniformly, with light fuscous; pattern of neck all around blended. Length 241.3-270.4 (9.50-11.00); wing 173.5 (6.83); tail 65 (2.56); bill 22.6 (.89); tarsus 45 (1.77).

Recognition Marks.—Killdeer size. "Golden" speckling of upperparts distinctive; somewhat smaller than preceding species; bill decidedly smaller; not so white below in fall plumage; axillars *brownish gray* instead of sooty black.

Nesting.—Does not breed in California. *Nest:* On the ground, with a scanty lining of leaves and grass. *Eggs:* 4; olive-buff of various degrees of intensity, boldly spotted and blotched with brownish black. Av. size 50.8 x 33.3 (2.00 x 1.31).

General Range.—Breeds in the high North from Point Barrow in Alaska, east to Hudson Bay. Winters on the open plains of Brazil, Argentina, Bolivia, etc. Migrates in the fall by way of Labrador and the Atlantic Ocean route from New Brunswick and Nova Scotia via Bermuda and the West Indies. Returns in the spring via the Mississippi Valley. Casual or irregular elsewhere during migrations from western Europe to the Pacific Coast of America.

Occurrence in California.—Of rare occurrence during migrations; sporadically abundant. Requires careful distinction from the foregoing species and from the

(hypothetical) Pacific Golden Plover (*Pluvialis dominicus fulvus*), which breeds in western Alaska and which has been taken as far south as Comox, Vancouver Island (Brooks).

Authorities.—Gambel (*Pluvialis virginiaca*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 220 (coast of Calif.); *Cooper and Suckley*, Rep. Pac. R. R. Surv., vol. xii., 1860, p. 229 (San Francisco); *Cooke*, U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 80 (Santa Cruz, p. 84; distr. and migr.); *ibid.*, U. S. Dept. Agric., Bull. no. 185, 1915, p. 16, fig. 4, map (migr.); *Grinnell, Bryant and Storer*, Game Birds Calif., 1918, p. 458 (desc., occurrence, habits).

THE RECORDED appearances of this species are so few, only four or five in number, that the bird is scarcely entitled to a rating above "accidental" in California. Indeed the word "accidental," never quite accurate in the estimation of any natural occurrence, most nearly describes the wide deviation from custom of those golden waifs which straggle down the Pacific Coast instead of keeping to the eastern route.

Alleged Californian occurrences are worthless without specimens. The plumage of immature Black-bellied Plovers seen during fall migrations sometimes exhibits a fulvous, or tawny, character which would deceive the very elect. The speckling of *P. dominicus* is really "von goldt," but like other appearances of the precious metal its determination requires the acid test.

The migration route of the American Golden Plover is in many respects the most remarkable of any species in the New World. Distributed in summer along the Arctic Coast of America from Hudson Bay to Bering Strait, the birds at the close of the breeding season move

Taken near Santa Barbara *Photo by the Author*

NOT A BIRD IN SIGHT

sharply eastward to Labrador. Here they pause for a season to fatten on berries, then move south to Nova Scotia, whence they set forth, about August 25th, to accomplish by a single sustained effort an over-sea flight of from 2000 to 2400 miles to the Lesser Antilles and South America. The winter home is in southern Brazil, Uruguay, and Argentina. The return journey is accomplished by an altogether different route, viz., one plotted *via* Bolivia and northern Peru, thence by air to Texas, or, rarely, Yucatan, and so "homeward" by a leisurely course up the Mississippi Valley and through central British America. Spring shooting in the Mississippi Valley, coupled with easterly storms on the Atlantic Coast, and, latterly, the increased occupation of Argentina by agriculture, have conspired together to reduce this once enormously abundant species to the verge of extinction. The species is recovering somewhat under Federal protection, but will probably always require nursing.

Taken near Santa Barbara *Photo by the Author*

THE MER-FOLK

EVIDENTLY THE GOLDEN PLOVERS HAVE BEEN FRIGHTENED FROM OUR SHORES BY SUCH APPARITIONS AS THESE. IN DEFAULT, THEN, OF PORTRAITS OF THE PLOVERS WE PRESENT THOSE OF THEIR PERSECUTORS

No. 256

Killdeer

A. O. U. No. 273. **Oxyechus vociferus vociferus** (Linnæus).

Synonyms.—Kildeer. Killdee Plover. Killdee.

Description.—*Adult:* Crown and occiput and back bright grayish brown, the feathers often sparingly or narrowly edged or tipped with tawny; rump and upper tail-coverts cinnamon-rufous or tawny; tail like back, crossed subterminally by broad black band, and tipped with lighter brown, ochraceous, and white, the lateral feathers irregularly dusky, white and tawny; primaries dusky, the outer with some white on the inner webs, and the inner ones with white on the outer webs; two black bands across chest, the anterior one nearly reaching around cervix; a band on forehead, separating the white and brown, and another across cheek from bill, impure black; included spaces of head and neck, a ring around cervix, and remaining underparts pure white; the brown of back encroaching on sides of breast between black bars, and sometimes suffusing entire space between them; eye-lids bright orange-red. Bill black; legs pale. *Immature:* Like adult, but feathers of upper plumage more extensively edged with tawny; sides of breast and white chest-band more or less overlaid with tawny. *Chicks* have only *one* black pectoral band, but are otherwise strikingly like adult; upperparts mottled black and tawny; feathers of tail filamentous-parted, silky, wavy. Length 228.6-285.8 (9.00-11.25); wing 161 (6.34); tail 91.2 (3.59); bill 20.6 (.81); tarsus 35.8 (1.41).

Recognition Marks.—Robin size; *two* black bands across chest distinctive; tawny rump; vociferous "*Killdeer*" cries.

Nesting.—*Nest:* On the ground, often upon gravel, unlined, or with some accumulation of bark-fragments, dead leaves, and trash. *Eggs:* 4; ovate-pyriform; buffy white or pale olive-buff, boldly spotted and blotched or scrawled with brownish black and with occasional violet-gray. Av. size 38.85 x 26.4 (1.51 x 1.04). *Season:* April–May; one brood.

General Range.—Temperate North America and northern South America. Breeds from central British Columbia, southern Mackenzie, and central Quebec south to the Gulf Coast and Mexico. Winters from the Southern States and casually from southern Indiana and New Jersey south to Venezuela and Peru; casually to Paraguay and Chile. Accidental in Great Britain.

Distribution in California.—An abundant migrant throughout the State; partially resident at most of the lower levels west of the Sierran divide. A summer resident east of the Sierras and in many of the Sierran valleys. Rare or local as a breeder in many sections south of the Tehachipe. Numbers in the San Diegan district considerably augmented in winter. Scarce or casual upon the islands.

Authorities.—**Gambel** (*Charadrius vociferus*), Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 220 (Santa Barbara); *McAtee*, U. S. Dept. Agric., Farmers' Bull. no. 497, 1912, p. 16 (food); *Tyler*, Pac. Coast Avifauna, no. 9, 1913, p. 31 (San Joaquin Valley; nesting dates, etc.); *Bryant*, Auk, vol. xxxi., 1914, p. 170 (feeding on grasshoppers).

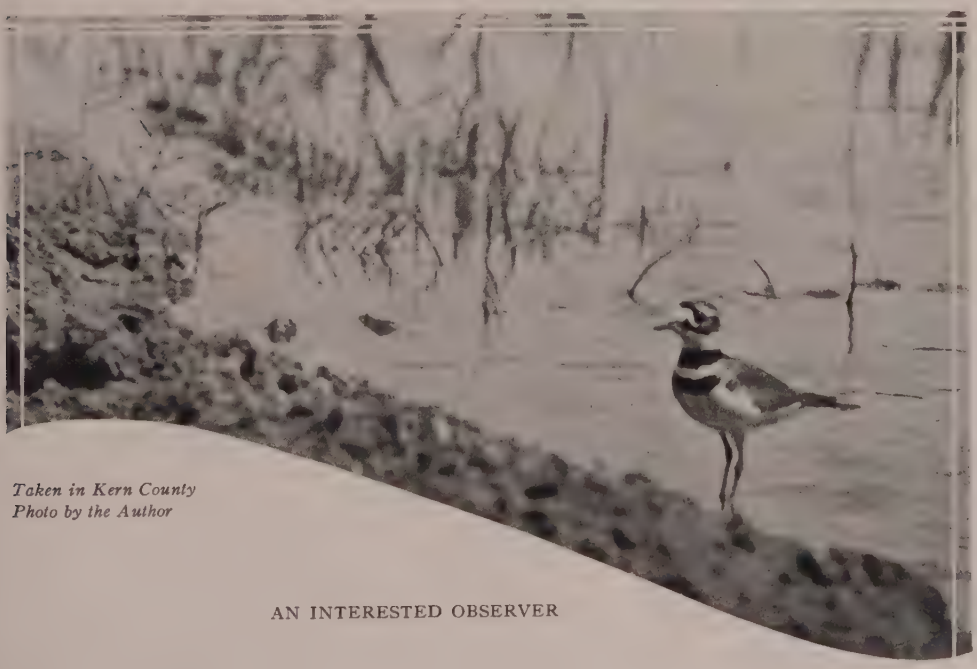
Oxyechus vociferus vociferus earsplitterus ananias! The books concede only the first three epithets: we add the others upon our own authority.

KILLDEERS

Oxyechus is the noisemaker extraordinary, the professional scold, the yap yap artist, the irrepressible canine of the bird world. In season and out of season her (or his) shrill cries arouse the countryside to attention, and in nine cases out of ten the object of her vociferous spite is a human being. *Vociferus* is the arch accuser of the human race, and as sure as a mere man sets foot upon a portion of the domain which she counts her own, every ingenuity of alarm is brought to bear upon him, every passion and prejudice of the wild things is appealed to, and the miserable son of Adam is denounced as a wrecker of homes, an ogre and an outcast. This is unfortunate, whether one's intentions happen to be honest or not. Nobody enjoys being barked at. But be you Beauty's self, or a burglar, it is easier to placate a barking cur than it is to silence the clamorous guardian of the meadows, this self-constituted tutelary of all lesser fowls.

The case is bad enough when the bird has real interests at stake. If you are actually near the nest there is some excuse for alarm, and the

female does not fail to try every ruse in the endeavor to lure you away from the dangerous spot. First she rolls and flounders away across the ground, screaming with agony, as though she had been stepped on. But if you are simple enough to follow, the bird gradually recovers, and is soon able to patter along ahead of you with tolerable celerity. The male, too, is no indifferent spectator. He comes as near as he dares, and shrieks, "*Dear, dear, dear, dear, dear,*" until the wonder is that he does not burst a blood vessel or split his vocal cords. Interested neighbors add their frenzy to the din, until in desperation you are almost ready to believe yourself the frightful villain they are all accusing you of being. If you are willing to quit the place, a bevy of fathers will pilot you out of bounds. One will patter ahead of you with breast pushed forward and legs incredibly nimble, only to pull up presently with a jerk and a compensatory bob to ask if you are following. The others describe a great half-circle about you with graceful wing but unceasing stridor, and take their places in the van. The birds believe themselves extremely clever as they lead you off by alternate flights and sprints, and you may hear them indulge from time to time in a low rapid titter, *teeeee-t*, which you may be sure is quite at your expense. All this racket is bad enough at best, and one may be really sorry to have intruded, at first, but when the whole operation is gone through with again the next time you happen that way, and when you know that the young are long since flying, all this fuss and outcry is distinctly annoying. One feels as if the Killdeer had contracted the habit of yellow-journalism and couldn't let go.



Taken in Kern County
Photo by the Author

AN INTERESTED OBSERVER

As a matter of fact he has. He has become obsessed with a passion for denunciation. The excitements of the nesting season have spoiled him. He has racket and objurgation upon the brain, and long after his own chicks have joined the howling chorus, the Killdeer warns and hectors and incites sedition generally throughout the rest of the bird world. Or, in scientific parlance, the normal reactions of the breeding cycle persist, and are transferred to a broader field. Sportsmen hate the Killdeer and shoot him on sight as a marplot and general nuisance. Stalking game is impossible with such an alarmist on the job. Nor is the case any better with the bird photographer, that most innocuous of mortals. My final and overwhelming lesson came when, on October 11th, 1913, I had sighted on the grounds of the Empire Gun Club a small company of the rare Pectoral Sandpipers (*Pisobia maculata*). It was the opportunity of a lifetime hereabouts, and left to themselves the birds would have proved amenable to those methods of gradual approach and disarming of anxiety which are usually so successful with the Shore-birds. But in this instance an officious Killdeer set himself the task of thwarting all my plans. Not content with effecting his own escape, noisy enough in all conscience, the Killdeer turned back to warn his neighbors, and if a single one of the Pectorals did not dutifully heed the first alarm, the Killdeer returned forthwith and dived menacingly at the delinquent's head. He did this not once or twice, but persistently, insomuch that the "Kriekers" became wilder and wilder, and my last hour's effort with them was

Taken in Kern County *Photo by the Author*

HEAD ON

more fruitless than the first. And such conduct on the Killdeer's part is perfectly habitual. Speaking soberly, I believe the Shore-bird portraits in "*The Birds of California*" might have been twice as numerous and much more excellent, if it had not been for the pharisaical machinations of the Killdeer. Is it any wonder, then, that the author is "sore"?

Dr. Grinnell, in the "Distributional List," characterizes the Killdeer as an "abundant resident of suitable localities throughout the State," with some restrictions as to range. Undoubtedly, the Killdeer is an abundant resident of the State, in the sense that the species is always to be found within our borders, and there are many localities in which Killdeers are to be found the year around. But it is doubtful whether the individual Killdeers are ever strictly resident, that is non-migratory. It is more probable that there is a total redistribution of individuals in winter, but that the fact is disguised to our attention by the quasi independence of each individual bird. There are no "migrating hosts" of these birds, but dwellers by the sea are familiar with the fact that Killdeers do gather *en flock*, and that under such circumstances they behave very much like other Shore-birds. I have seen flocks of fifty Killdeers bunch closely and wheel and turn in silence and disappear in perfect order; but on other occasions the cohesive force has proved insufficient. The flock impulse has broken down, and the impatient individuals have scattered in shrill alarm, and with every evidence of mutual disgust. It is, apparently, only the spell of new and untried surroundings which induces even a brief awe on the Killdeer's part. Thus, I have seen them near Santa Barbara in great scattered

Redrawn by Allan Brooks from photo by the Author
ENTICEMENT

companies deployed over the dry sands of the upper beach, each as silent as a ghost, and each intent upon moving so discreetly as not to challenge the attention of the local Lares. It was a most comforting sight.

The Killdeer favors open situations wherein convenient access to water offers, be they pastures, meadows, fallow fields, virgin prairies, lake beaches, or mud bars. Being a plover and not a snipe, the Killdeer

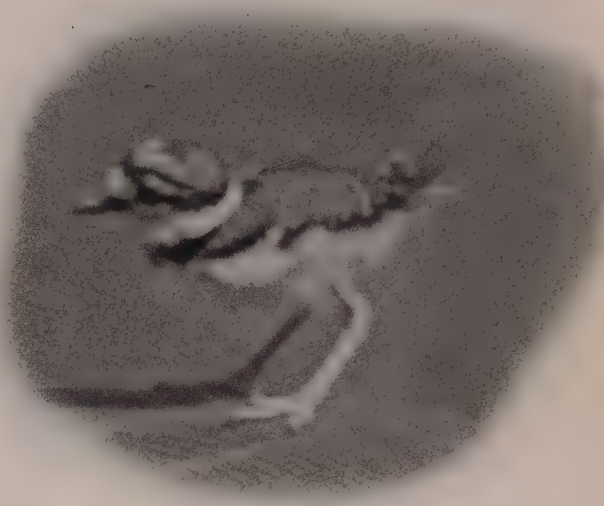
Taken in San Luis Obispo County *Photo by the Author*

NEST AND EGGS OF KILLDEER

requires a firm footing. Though they haunt the edges of pools and wade belly-deep in water, on occasion, they neither dabble nor probe, but only snatch and glean—and "holler." The Killdeer nests on the ground in the most exposed situations, preferably, but not invariably, those devoid of vegetation. The four eggs are always placed with the little ends inward, and are so closely crowded together into the deep hollow that the major axes incline as much as 45 or 50 degrees, and the larger apices measure sometimes only an inch and a half from egg to egg; this, of course, that the parent bird may have the maximum of covering power over the relatively enormous eggs.

The nest, at times, consists of little more than the supporting earth or gravel; but oftener the nesting hollow is carefully lined with weed-stems, bits of bark, chips, or fragments of cow-dung. On one occasion I found a Killdeer proudly ensconced in the midst of a large dried "cow-flop" whose center had been carefully chiseled away for the reception of her eggs.

At Los Baños the nesting Killdeers are loosely associated with the Black-necked Stilts. The choice of such companionship must involve real self-sacrifice upon the Killdeer's part, for the Black-necked Stilt is the one bird which can outshriek the Killdeer. Moreover, the Killdeer is helpless when the annual flood begins to rise. Instead of scurrying about and shoring up the threatened nest with weeds and trash, as the Stilt would do, the Killdeer only mourns, while the waters invade, and eventually flow over the doomed eggs. I succeeded once, in Washington, in affording succor to a brooding Killdeer whose artless solicitude had rather intrigued my heart. When the flood-waters began to threaten, I built a platform, set up on stilts, and placed thereon the sod containing her nest. At first the bird was heart-broken, having no idea what had become of her eggs, and it was only after a day's patient training, and the use of successive stages of sod approaches, that the bird was led to accept her new and very prominent tower of refuge. Even then I was obliged to provide a sod-covered runway which led up to the platform, and as often as the Killdeer approached or left her nest she used the runway, having no conception of a nest situation except as embodied as a part of terra firma.



Taken in Kern County FIRST STEPS *Photo by the Author*

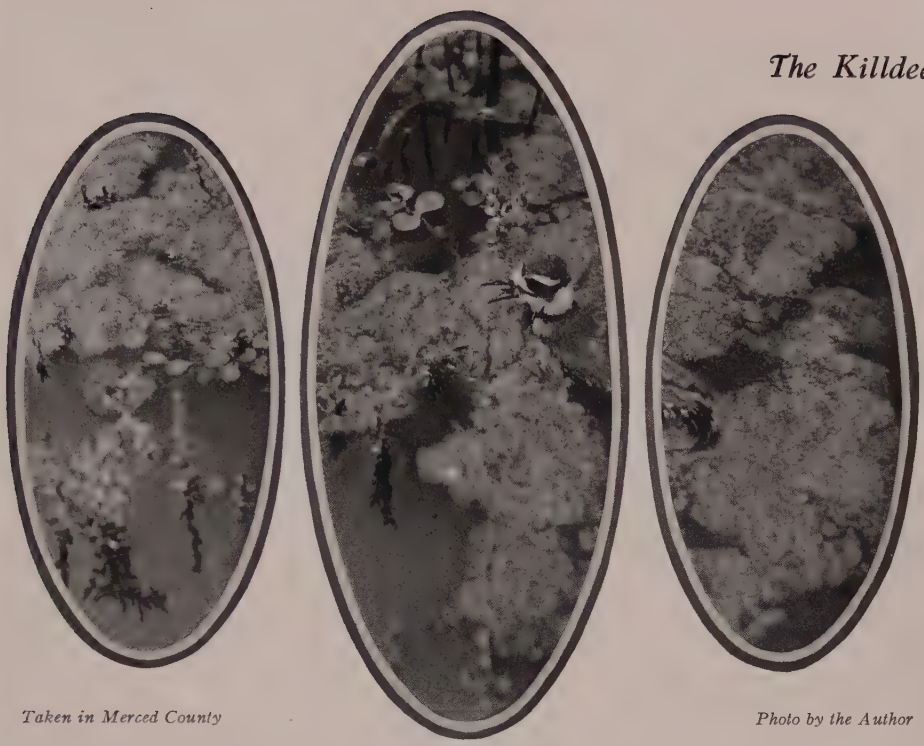
From this and other experiments, we have learned something of the psychology of the Killdeer, and know that she is a victim of predominant impressions, to use the current phrase. A second mental limitation under which the Killdeer labors, as indeed do all Shore-birds for the matter of that, is that the imminence of danger is measured by its altitude on the horizon.

In illustration of this point I give in some detail the circumstances attendant upon the taking of the portrait on page 1306. It was on the

Cholame flats in San Luis Obispo County. The eternal Killdeer had challenged with the eternal *killdeer killdeer dee dee deer*. A little search had discovered the four handsome eggs; but the bird covered them so quickly after our remove, and in spite of the fact that I had flung my red bandana down within two feet of the nest, that we had instant visions of photographic possibilities. I stationed myself within twenty feet of the nest, and watched the silent posturings of the female under the boiling noonday sun for nearly an hour. But wait as patiently as I might, she would not come within thirty feet, and she spent more time at fifty. Only one snap did I get on a decoy pose, though a thousand offered at too great range or behind too heavy a screen of grass. In noticing the posturing of the bird I was reminded of the hint dropped by a celebrated animal psychologist, who reported that monkeys, when close pressed by larger members of their tribe, invariably offered sex satisfaction as a ransom. I may be wrong, but it seemed to me that the display of fan-shaped tail, the quivering wings, and the amorous rolling of the bird was rather an erotic invitation than an appeal to the palate. Certainly there is lacking in the Killdeer decoy ruse the consistent carrying out of the broken-wing or broken-leg suggestion. It may also be that the play of this bird was half-hearted, both on account of the extreme heat—she was panting at the time—and my absolute apathy. Finally, in despair, I lay down in the grass to see if the bird *ever would* come nearer. Judge of my surprise on arousing five minutes later to find her *sitting on the nest*. As I rose to a sitting pos-

Taken in San Luis Obispo County *Photo by the Author*

RISING FROM NEST
AND BREAKING FORTH IN INSTANT PROTEST



Taken in Merced County *Photo by the Author*

ENTANGLEMENTS
A JUVENAL KILLDEER HAVING TROUBLE WITH THE SCUM

ture she was off instantly and began decoying at 30 to 40 feet. Again I tried "sleeping," and again she returned. But as long as I remained seated or rose to my knees she played off from 60 to 80 feet. Here then was the key to this bird's psychology. *Her distance increased in direct proportion to my elevation from the ground.* If I assumed a supine position, partially buried in the grass, she almost entirely disregarded me. As I rose she pattered away, and if I stood she flew 150 feet. With this knowledge gained, I let my camera, the Graflex, sit upon the ground some 16 feet from the nest, dug a tunnel through the light grasses, then lay down beside the camera with a finger on the trigger. In this way I got three quite creditable snaps at the bird standing over or crouching upon her eggs. Here, too, it is worthy of remark that I had to lay my head flat on its side to completely lull the bird's suspicions; for as often as I reared it a little, she bridled also, or scampered off. It was an absurd and pathetic illustration of the old adage, Out of sight out of mind.

But if Killdeers are anxious regarding the safety of their eggs, this anxiety is raised to the nth power when their young are to be considered. The din attendant upon the defense of those infant prodigies is quite indescribable. And the behavior of the parents on such occasions is worthy of a separate treatise. Mr. Raymond Driver tells me of one reaction which

must be unusual. Mr. and Mrs. Driver were watching a pair whose young were evidently in hiding hard by, and they had looked for them in vain. The male bird (as they supposed him to be) was beside himself with rage, and by way of relieving his emotions he trod the ground furiously. Hold-

Taken in Washington *Photo by the Author*

AN ELEVATED STATION

ing to one spot he stormed and stamped like a child in a pet, and his feet plied like pistons, "3500 r. p. m."

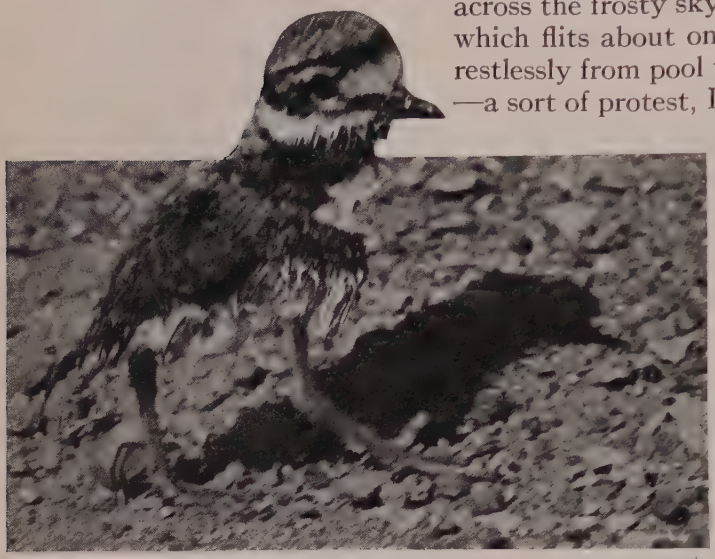
Young Killdeers themselves are delightful absurdities. Their strength is in their legs, and these carry them pattering away before the embryonic juices are fairly dried upon their backs. They need to be nimble, for all nature turns teeth to little birds that cannot fly. When papa or mama thinks best, also, the little fellows will crouch and freeze most dutifully. On such occasions the rump, with its ridiculous tuft of lengthened bristles, is stuck up into the air, and passes muster for waving vegetation. The finding of a chick under such circumstances is a happy accident. Indeed, the discovery at long range, even though the observer be reinforced by

powerful glasses, is often a baffling matter. Just for the game's sake I once visited a certain damp stretch of gravel where I knew the Killdeers were at home. A male bird gave early alarm, but was not joined by his mate until after the lapse of several moments. Both hurried forward and the male devoted himself assiduously to "playing" me, but the female soon retired and took to sneaking in the distance, in what appeared to be a somewhat aimless fashion. After fifteen minutes I caught the flash of another white head near that of the female (150 yards away from me), a *youngster* being coached away by its mother. I marked it down as well as I could and made for the spot; but it was to laugh. I hadn't it at that range within 20 feet; so I retired, under grave suspicion, to spy some more. Again the coaching tactics at 100 yards. The birdling froze as soon as I began to move, but I thought I had a pretty close line on it this time. Arrived at the spot I threw my handkerchief down and searched foot by foot—with increasing mystification. Again I retired. This time I got a "bead" on baby at fifty yards. It was well I did so, for he had found a hidey hole in the shape of a calf's track, and he was a frozen dainty when I reached the spot. Not an eyelid would he bat while I stroked his forehead, but when I lifted him in my hand the spell was broken and he became all animation.

Opinions of the Killdeer will differ endlessly, according to one's own mental reaction. But whatever one's opinion, it is certain that *Oxyechus vocif vocif*, etc., is not a negligible bird. He bulks large in the American consciousness, whether of tyro or scientist. The opinion of the economist is altogether favorable, for the Killdeer is voted a very valuable coadjutor in the endless war against "bugs." The sportsman, too, although he has preferred charges against him, as recited, has no claim upon the bird as food. It is reputed, I believe, to be too tough, or dry, or stringy, or something of that sort; but I suppose the real reason is that the bird is too *individual*. So far as I know, other birds do not resist the impertinence of the Killdeer. Yet I do recall one exception, of doubtful significance. In this a Barn Swallow figured as the pursuer, and a Killdeer, of all virtuous creatures, as the pursued. It was no casual affair either, a playful dive or a perfunctory resenting of intrusion. The Swallow chased that Killdeer from cellar to garret and back again thirteen times while I gazed in astonishment. What the Swallow wanted I do not know; but the Killdeer wanted to get away and he wanted it badly. He succeeded at last in brandishing a clean pair of heels before that wing master, *Hirundo rustica erythrogaster*, and I had seen one of the prettiest and longest exhibitions of aerial fencing ever witnessed, or ever the Swallow gave over the chase. But I haven't the least idea what sort of mischief he could have been up to.

Our own recollection of the bird is softened by tender memories of

earliest springtime in Illinois or Ohio or Massachusetts. At such time the shrill cry of the Killdeer shouting his name is a welcome omen, when it cuts across the frosty sky. His unquiet spirit it is, also, which flits about on moonlight nights. He moves restlessly from pool to pool and shouts as he moves, —a sort of protest, I suppose, against the coming of the moon madness.



Taken in Merced County *Photo by the Author*

DEJECTION

Dry seasons in California, winter seasons, that is, are often marked by an invasion of Killdeers upon our lawns. The winter of 1917-18, for example, saw hundreds of these plucky dears deployed over the lawns of Montecito, or else culling bugs off little two-by-four plots in the center of town. Think of it! a Killdeer! that arrogant tyrant of the pastures who has upbraided us by every epithet found in Roget's Thesaurus, and who has cursed us, besides, in more languages than we know the names of—this termagant of the meadows meekly pattering here over the grass and turning up a deprecatory eye as he scuttles across our bit of a front walk! Arragh! ye impudent spalpeen, I've a moind to have ye arristed!

No. 257

Semipalmated Plover

A. O. U. No. 274. **Charadrius semipalmatus** Bonaparte.

Synonyms.—Ring Plover. Ring-neck.

Description.—*Adult in summer:* A narrow black band across breast and continuous around hind-neck; fore-crown and a band on side of head below eye to bill, and meeting fellow on extreme forehead, black mixed with brown; forehead, indistinct superciliary line, lower eye-lid, chin, and throat, continuous with narrow band across cervix, and remaining underparts, white; crown and nape, back, etc., bright grayish brown; upper tail-coverts and base of tail a little lighter, tail blackish subterminally, the outer pair of feathers pure white, the others decreasingly white-tipped; greater wing-coverts white-tipped; primaries blackish, the basal and subterminal

portion of their shafts white. Bill black, orange-red at base; a bright orange ring around eye; feet and legs yellowish. *Adult in winter:* The black markings replaced by dark grayish brown. *Young:* Similar to adult in winter, but feathers of upper-parts tipped with light buffy. Length 165.1-190.5 (6.50-7.50); wing 124.5 (4.90); tail 53.3 (2.10); bill 13.2 (.52); tarsus 24.6 (.97).

Recognition Marks.—Sparrow size, but appearing larger; a miniature Killdeer, but without tawny rump, and with only one *black* band across breast. Feet partially webbed.

Nesting.—Does not breed in California. *Nest:* On the ground. *Eggs:* 3 or 4; something like those of Killdeer, but smaller and not so heavily marked. Av. size 33 x 23.4 (1.30 x .92).

General Range.—North and South America, breeding northerly from Melville Island to southern Mackenzie, Labrador, the islands of the Gulf of St. Lawrence, and the Queen Charlotte Islands; wintering south from South Carolina, Louisiana, and southern Lower California, through the West Indies to Argentina and Chile and upon the Galapagos Islands.

Occurrence in California.—Common spring and fall migrant coastwise; casual about the larger bodies of water in the interior (Salton Sea, Apr. 27 and 28, 1917). *Spring migrations:* Apr. 27 to May 7 (Santa Barbara). *Fall:* July 28 to Oct. 15 (*ib.*).

Authorities.—Cassin (*Aegialitis semipalmatus*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 694 (Presidio; Petaluma); *Coues*, Birds of the Northwest, 1874, p. 453 (syn., life history); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 49 (s. Calif. ids.).

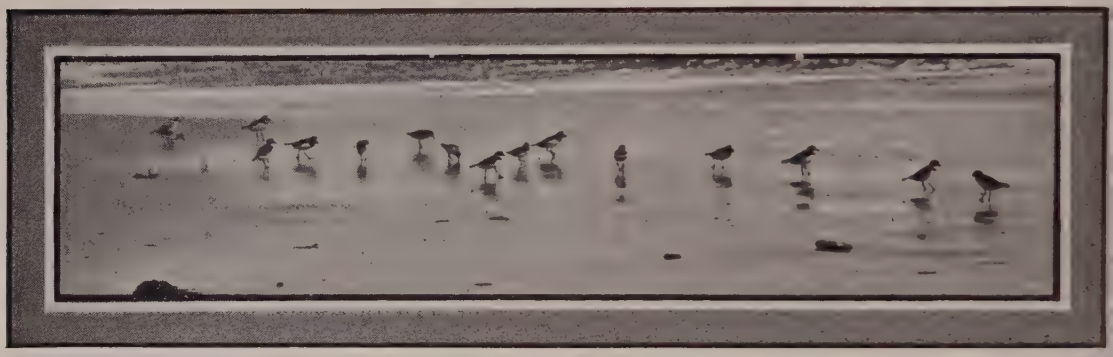
Taken near Santa Barbara

A GENTLEMAN FROM PERU
PORTRAIT OF SEMIPALMATED PLOVER

Photo by the Author

The Semipalmated Plover

"IN CALIFORNIA the Semipalmated Plover is most common along the shores of the ocean and larger bays. It seems to be equally at home on sandy beaches and on the mud flats of estuaries. Unless too greatly harassed the birds are exceedingly tame and will allow one to approach very closely. They may be found singly, in pairs, in small groups of five or ten, or in flocks of forty to fifty; the companies may either consist entirely of their own kind, or include other small shore birds. When a flock alights on the feeding ground, the individuals comprising it scatter out at considerable distances from one another and thenceforth act with perfect independence. Each runs for a short distance with such rapid foot-movement and even carriage of the body that it seems to fairly glide over the surface of the sand; then it stops abruptly to dab slantingly



Taken in Santa Barbara County *Photo by the Author*

AT HOME ON A SANDY BEACH

into the wet sand for morsels of food. Ground worked over in this manner shows a multitude of bill-marks. The movements of the birds are, as compared with those of sandpipers, more deliberate; now and then an individual momentarily dips its foreparts, a mannerism shared among several of the plovers. Ordinarily when the birds are scattered out over a feeding ground they are oblivious to one another's presence; but, should danger threaten, the signal of one sets all on guard. As they take wing the members of a flock bunch quickly together and fly off rapidly, in close formation, with numerous utterances of their clear two-syllabled call-note. The Semipalmated Plover differs from the Killdeer in being much quieter, more gregarious, and in showing a decided preference for maritime forage grounds."[1]

In strange contrast with the flock impulse referred to above, and which so generally affects wading birds, is the madness of certain individuals who become possessed of crank notions, and go tearing off into space

[1] Game Birds of Calif., Grinnell, Bryant & Storer, p. 471.

on their own account. One such I saw, a Semipalmated Plover, at Sandyland on the 29th day of August, 1911. This bird suddenly detached himself from the company of his fellows and went whistling and corkscrewing through the air like a paper in a cyclone. The presence of the birdman may have been the innocent cause of all this excitement, for as often as this mad prophet repassed the main flock, he shrieked at them to avoid the wrath to come—but the other birds paid no attention whatever to him.

Semipalmated Plovers are common, but never abundant visitants during the fall migrations. Their movement at this season is leisurely, and they occupy about two months in passing, from August 15th to October 15th, with exceptions of a month or so on either side of these dates. There are early accounts of the species wintering at San Diego, but none have been seen at that season in a good many years. The return movement of spring is much more condensed and purposeful. The bulk of the species passes through our borders during the first week in May, but again there are exceptions on either side, and a few stragglers, as always, linger into June, or else abandon the northern journey outright.

On a magic day in May, camera-laden, I visited Cavaletto's Point, west of Santa Barbara, and straightway became engrossed with a little flock of Semipalmated Plovers. Old hand that I am at the game, I shall not soon forget the arduous and delightful hour spent in the company of these confiding little gleaners. A thin fog kept rolling up over the scene of operations, only to be burnt off again by a sturdy sun. The alternating moments of enshrouded mystery and stark revelation would have been romantic enough in themselves, but when the chance of a lifted curtain might bring one face to face with a gentleman from Peru, the occasion was thrilling. The birds fed over the exposed rocks inhabited by the

Taken near Santa Barbara "SUCCEEDED IN WINNING THEIR CONFIDENCE" *Photo by the Author*

rock-oysters, as well as over the intervening sand-beds, and especially about the margins of pools left by the receding tide. Here I followed them with the camera, creeping or shuffling about most humbly, and so far succeeded in winning their confidence as to obtain sixteen plates at distances ranging from fifteen to thirty feet. The Plovers were content, apparently, to regard me as a sort of amiable Triton come ashore to rest, but I heartily wished myself a fellow *Charadrius*, so that I, too, might trip about nimbly snapping up unsalted dainties from the clean white sand, —or else that I might engage in one of those playful tilts where, with ruffled wings and a teetering cry of defiance, one little midget charges at another who has trespassed upon his preserves. A few Western Sandpipers mingled freely among the Plovers and appeared to occasion less distrust on the part of the Plovers than others of their own kind. Perhaps the 'tilts' were chiefly amorous in spirit and not actually hostile.

No. 258

Snowy Plover

A. O. U. No. 278. **Charadrius nivosus nivosus** (Cassin).

Description.—*Adult male in summer:* Somewhat similar to *C. semipalmatus*, but bill entirely black, and black markings of head much reduced; upperparts pale ashy gray, tinged faintly on back, strongly on crown with orange-buffy; wing-quills fuscous and black with some outcropping white on outer webs of inner primaries; greater coverts and primary coverts tipped with whitish; a short black bar across crown, not extending to eyes; a black post-ocular stripe curving downward behind auriculars; a touch of black on lores anteriorly; a transverse patch of black on each side of breast (vestiges of the pectoral collar which marks other species); forehead broadly, sides of head, a cervical collar, and underparts snowy white. Bill and feet black. *Adult female in summer:* Similar to male, but a little duller; crown less tinged with orange-buffy; the black areas invaded more or less by color of back. *Adults in winter:* Still duller; orange-buffy tinge wanting above; the black areas of male largely admixed with gray; the corresponding areas in female entirely gray (color of back). *Immature:* Like adult female in winter, but gray of upperparts a little darker and somewhat varied by paler edgings. *Length of adult:* 158.8-184.2 (6.25-7.25); wing 103.4 (4.10); bill 14.1 (.55); tarsus 25.4 (1.00).

Recognition Marks.—Sparrow size; pale coloration; beach-haunting habits; bill entirely black, and pectoral collar *not* continuous across chest, as distinguished from *C. semipalmatus*.

Nesting.—*Nest:* A mere hollow in sand of upper beach, lined or not, with broken clam-shells. *Eggs:* 3 (4 of record); ovate or short ovate; sand-color, pale olive-buff, sharply, finely, sparingly, and rather uniformly marked with black. Av. of 15 sets in the M. C. O. coll.: 30.2 x 22.1 (1.19 x .87); index 73. *Season:* April–July; two broods.

Range of *Charadrius nivosus.*—The southern United States and northern South America with included areas. Breeds (in the United States) along the Gulf Coast from Florida to Texas, and in Oklahoma and Comanche County, Kansas, and in the western states north (at least) to Salt Lake.

Range of *C. n. nivosus.*—Breeds in California, chiefly coastwise, and in northern Lower California, and interiorly north to Salt Lake. Winters from southern California southward along the western coast of Mexico to Peru and Chile. Of casual occurrence in Oregon, Washington (Gray's Harbor) and the Straits of Magellan.

Distribution in California.—Common resident at local points along the coast —north regularly to Pescadero (in San Mateo County). An isolated colony, possibly resident, near Eureka in Humboldt County. Also occurs in the interior: Los Banos, May 21, 1912, and May 21, 1914; and especially about the larger inland bodies of water; Tulare Lake, May 14, 1912; Goose Lake, June 10, 1912; Owens Lake (Fisher); and Salton Sea (Grinnell).

Authorities.—Vigors (*Charadrius melodus*), Zool. Voy. "Blossom," 1839, p. 30 (San Francisco); *Cassin*, in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 696 (orig. desc.; type locality, Presidio, near San Francisco); *Henshaw*, Geog. Surv. W. 100th Merid., 1876, p. 269 (nesting habits at Santa Barbara).

"JUST THE CUNNINGEST little creatures that ever happened!" So runs our early notebook entry made in Santa Barbara on a December day, when a flock of 55 of these birds was encountered in the little patch of level sand which separates the boulevard from the beach proper. And a more matured judgment sees no reason for change, save that the declaration would apply more strictly to a *baby* Snowy Plover. December, however, is not the moon of babies, and the visitor may be thankful for an intermediate stage leading up to this crowning wonder of the fruitful sands.

The Snowy Plover is part and parcel of the sand. His clothes assimilate its hue so perfectly that a crouching bird may be invisible from shore; and if a moving bird is glimpsed as he patters from the shelter of a footprint, one will hardly guess, at first, that a score of his fellows are also moving. Nor is a sitting bird's breast any such landmark as one might suppose, for the white breast might be a clam-shell, one of a thousand, and the interrupted black bar of the chest,—what is that but a broken piece of charcoal tossed up by the tide! Anyhow, the dainty birds trust to their protective coloration quite implicitly, and it is not till you are approaching the edge of a given area and the birds begin to break from cover to run trippingly down the steep tide slope, or to flit with little cries of dismay, that you suspect the havoc of inconvenience you have wrought.

The sand, the sheltering sand, the glorious, sun-warmed sand, the sparkling, rustling, million-sided sand, why should it not be paradise enough for a little piper! On sand was he cradled, and sand it was which gave his tottering baby foot a soft embrace. Sand is his wet nurse and his

Taken in Santa Barbara *Photo by the Author*

THE APPROACH

FEMALE SNOWY PLOVER STEALING FORWARD TO CLAIM EGGS. THE EGGS THEMSELVES ARE JUST IN FRONT OF THE BIRD BUT OUT OF FOCUS

dry nurse too. The sands are his gymnasium, circus, arena (to be exact). Here it is he dries his clothes after a plunge, or takes a towel of sand in its powdery warmth and, rising, shakes the dry liquid from him in prismatic showers. Here he woos and battles, loses, triumphs, mourns, or otherwise conducts the business of life. From the sands he wrests his meat and upon the sands alone he couches his slumbering form. And on the sand he dreams, for when the wind stirs up the sand, ah, then it is it whispers to him of soft enchantments and of fairy banquetings. In these hurrying particles a thousand diamonds flash and a million glasses tinkle, and the piper feels himself some fairy regent in a heaven of his own.

Snowy Plovers are resident upon our southern beaches. They are not distributed along over the entire stretch of shoreline, but occur only in most favored situations, usually those which are backed by sand dunes, or which give easy access to a hinterland containing brackish lagoons or a quiet-flowing river. In such places they assemble in colonies numbering from half a dozen to a score of pairs, and if the annual crop of babies is a good one, one may see a hundred birds in August on a given stretch of beach. The Plovers show no jealousy of other birds, and mingle on occasion with such visitors as Sanderlings, Semipalmated Plovers, and Killdeers, or with the lesser sandpipers.

Some of their food is obtained at the water's edge or on the wet sand, and some is taken on the saline flats which border the lagoons; but more of it is found along the dry sand levels which lie above the

ordinary mark of the tide. The Snowies scatter widely in pursuit of food, and spend much time apart, with a decent observance of "sea-room." When disturbed, however, as by a heedless stroller of the upper beach, the birds will muster rapidly at the water's edge, and when all are accounted for will make off in a compact flock, which is for the moment indistinguishable from a bunch of peeps.

Certain observers assert that our shoreline population of Snowies is largely augmented in winter, or changed outright. It is true that the local distribution in winter does not entirely coincide with that of summer, and there is more flexibility of movement; but it is at least possible that

Taken in Santa Barbara *Photo by the Author*

"REMNANT OF A ONCE FLOURISHING COLONY"

only those birds which breed along the shores of the larger interior lakes—Tulare, Goose Lake, Salt Lake, and the rest—go to Central and South America in winter, and that our beach population remains practically stationary, an immovable core of satisfaction in a flux of discontent.

For a nest our sand plover requires only the slight depression which may be formed by the pressure of her own breast. The choice of a location is, however, a matter of some solicitude. Several hollows may be

formed of which only one is eventually occupied. For one thing, the bird requires a slight elevation—three or four inches will do—so that she may command an unobstructed view of approaching danger. The bird takes good care not to be caught at home, quitting her charge sometimes at a hundred yards' remove; and it is no easy trick to find the eggs, unaided. If incubation is advanced, or discovery indubitable, the anxious mother may return to practice decoy ruses, trailing a broken wing, grovelling, and the rest. The male meanwhile is describing anxious circles in the offing; or else, by way of distraction, he patters forward until he is sure that he is commanding attention, then stops abruptly, bridling the head, and by repeated bobs challenges your right to intrude. It is rather good sport, too, once a location is made, to return by stealth and watch the female making that long-range sneak from her eggs. Her attitude is eloquent of secrecy. She hugs the sand as closely as is consistent with lightning speed. The tell-tale marks of head and chest are averted, so that only the sand-colored back may be presented to an eye presumably undiscriminating. Pauses are made now and then to note the bearing of the stranger, but the glance is covert and the sandy flight is hastily resumed.

In still weather the vicinage of the nest is enveloped in a network of intersecting tracks; for the bird never leaves or approaches the eggs save

Taken near Santa Barbara *Photo by the Author*

"PROTECTIVELY COLORED TO THE POINT OF INVISIBILITY"

on foot, and the male comforts his mate by many solicitous trippings to and fro. These telltale footprints sometimes aid the curious investigator; and it is not inconceivable that the birds themselves require some guidance in these wastes of shifting sands, for they sometimes select a site which is marked by some feature of minor prominence,—a stranded snail-shell, a whitened bit of driftwood, or even, as in the case of one in the M. C. O. collections, an encircling piece of dried kelp. The nesting hollow, moreover, is often carefully lined with broken bits of shell, a mosaic in white which serves to throw the eggs into relief. The eggs, unrelieved, are

Taken near Santa Barbara *Photo by the Author*

A CARELESS NEST

protectively colored to the point of invisibility; and those very traceries and hieroglyphics of black which might serve to distinguish them from sand, make them resemble the weather-stained kelp balls, which outnumber them upon the beach a thousand to one. Indeed, the writer has not yet recovered from the self-satisfaction attending the discovery of a waif plover's egg in a drifted bed of these curiously simulant objects.

The waif egg came by way of misfortune to the birds, for the Snowy Plovers suffer much at the hands of three blind forces, the wind, the

tide, and the unheeding step. The last-named operates by the laws of chance, with dangers ever increasing in proportion as humans throng the beaches. A pitiful remnant of a once flourishing colony still maintains itself within the city limits of Santa Barbara, at a point where thousands of people pass daily. The tide, acting in conjunction with the wind, visits a colony with sudden devastation almost every season, and sometimes overwhelms it in implacable succession.

The wind is a more constant enemy, but with this the bird is probably able to cope. I once found a nest containing three eggs, of which only one, and that one for the space of only a fingernail's breadth, was visible

Taken in Santa Barbara *Photo by the Author*

DUTY HALF DONE

THE BIRD IS STILL TOO FEARFUL OF THE CAMERA TO COVER HER EGGS PROPERLY

above the drifted sand. Leaving them undisturbed and returning two days later, I found the eggs fully exposed and the clam-shell flagging completely restored. How did the bird accomplish this? By prying up the buried treasures? or by removing the unwelcome accumulation beakful by beakful? I could not tell; but a more favorable opportunity offering elsewhere, I first assisted nature by lifting sand into the air by handfuls and letting the wind almost bury the eggs, and then retired to cover to watch the outcome. The female had evidently been sitting all day, for she was glad of a respite and made no feints at returning. She summoned her mate and played with him along the placid margin of the bottled Beale lagoon, then took a bath in its shallows. After this they pattered, as by a preconcerted movement, to the shelter of a sand hummock, where they "wiped" vigorously and elaborately. The return was so delayed

Taken in Orange County *Photo by Wright M. Pierce*

AN ARTISTIC HOME

and there was so little promise of interest, that I allowed my attention to wander to a group of shivering Sanderlings, jostling and crowding behind a low barrier of sand. Imagine my self-reprobation when upon bending a casual glance toward the plover nest I found the female already established. But she had evidently not been there long, for she immediately set about improving conditions. She first rose, then bent down and thrust her beak deep into the sand, bending it upward and *inward* to pry up the egg. After tugging for a time with apparently satisfactory results, she reversed her position, settled to her eggs and began kicking vigorously backward, tedder-fashion, sending the sand away in tiny showers. This done, she performed a similar office for another egg. By the time she had given the whole nestful two rounds of this alternate prying and kicking she had the eggs well clear of the sand, and she settled herself contentedly, head to the wind. It was all done with dexterity and swiftness, and went far to relieve the mind of that anxiety to which the sight of many buried eggs had made it a prey.

Partly, we may suppose, because of average misfortunes, the Snowy Plover finds it necessary to nest twice, at least in our southern latitudes.

The first nesting occurs in late April or early May, and the second in middle or late June. The second nesting is often undertaken in company with Least Terns (*Sternula antillarum browni*), if such are to be found. This association is often very close, insomuch that Mr. O. P. Silliman, observing the birds at Monterey Bay, believes that it is individual. A tern's nest means a plover's nest within a dozen feet or less, with an interval of fifty feet or so separating this consociation from the next paired pairs. In the Carpinteria nesting of 1915, I found two eggs of the tern which had been deposited in a nest already containing three of the plover. But this was undoubtedly a hostile move on the tern's part, rather than a consummated friendship.

Hatching day is a day of manifold anxieties in ploverdom. The old

Taken near Santa Barbara *Photo by the Author*

THE CHOICE OF A LANDSCAPE ARTIST

nest, which may have attracted unwelcome attention by now, is forsaken as soon as possible. One by one the babies are spirited away in different directions, and when they are left under some sort of cover they are

sternly enjoined not to move a muscle,—no, not so much as an eyelid. No one but a fiend would want to harm such cunning bits of mortality, mere fluffs of sand-colored down, spotted and streaked with black, after the approved model of a weathered kelp-ball. But a dog is just such a fiend, and the life of the chick often depends upon its willingness to stay put while its parents are luring the frenzied brute to a fruitless chase. Although I have seen infants crouching momentarily on the open sand, the presence of cover, real or supposed, appears essential to the maintenance of the freezing posture. Otherwise, even under close surveillance, the baby will presently shift at any risk. On a blowy day at Monterey we once startled a baby Snowy which scampered away under the lash of the driving sand. It was looking only for cover, and crouched under the first apology which offered, a bare stick not an inch in diameter which stuck up out of the sand. *Here with eyes wide open* the bantling was presently half buried. Most pitiful of all was the accretion of sand which, moistened by the tears, gathered over the exposed eyes and sealed them fast. Of course we made haste with the camera and did what we could for the infant's comfort before hurrying away.

Taken in Santa Barbara IN FULL POSSESSION *Photo by the Author*

A Monologue

WHY, IT'S TILLY! None other than our old friend *Pisobia minutilla*, whom thoughtless humans call Least Sandpiper! How do you do? Back from Alaska already! My! How time does fly! Do you know I'll be a great-great grandmother when Nivvy—that's my youngest boy—gets married next spring. But I'm not so old, either; not half as old as

that old frump over by the clam-shell there talking to E. G. E. G. was my mate year before last, but she can have him for all I care. Why, he lost a feather out of his wing right in the middle of the season. Got too close to a Hermit Crab and got pinched. And he didn't *care*, either, that was the worst of it. He has no more respect for his appearance than a drowned petrel. The gulls may get him for all o' me.

But tell you what happened this year? and why I didn't go north with you? The idea! Why, I wouldn't leave this beach for worlds. No; really, I wouldn't. Somehow it doesn't seem respectable—you'll pardon me, my dear—but it doesn't seem quite respectable to go gallivanting across the country with a lot of people you don't know very well, and none of 'em knowing where their next meal is coming from. And can you always be sure of finding that beautiful mossy country you tell about? Yes; the Aurora Borealis may be very fine, as you say; but how about the icebergs, and the ponds freezing up at night? And how about the Snowy Owls coming down to grab you? And how about the falcons and the weasels and the blue foxes? And how about the guns? Why, I don't believe half my gypsy friends ever get back here, even for a look-in. No; little old Santa Barbara is good enough for me. I love sunshine and lots of it. And I love the cool, gray fog that comes stealing in just before sunrise and holds back the heat of mid-July. I love the distant mountain ranges, blue, and crystal-clear, or purplish-hazy, eloquent of mystery. I love the ocean, fitful nurse, generous or capricious. She casts our victuals at our feet, bids us help ourselves, and pauses while we glean her offering. Anon, she drives us from the board, snatches all our dainties and makes off, in spite of protest. Repentant on the instant, she plucks a better provender from her breast and overwhelms our anger with her wealth.

And the sand, the glorious, warm sand, the sparkling, rustling, million-sided sand! Tell me, Tilly, did you ever see the like of it from Yukon to Peru? It's as fine as sugar and as clean as glass. Fill your feathers with it and shake it out in a prismatic halo. And when the wind stirs it, ah, then it whispers to you of soft enchantments and fairy banquetings. A million diamonds flash and ten million glasses tinkle while you feel yourself a fairy god in a heaven of your own. Sand! Oh, sand is paradise enough for me. On sand I was cradled; and sand it was which yielded to my tottering baby footsteps. Sand was my wet nurse; and my meat has been mingled with it. My clothes are colored for the sand. In sand have I loved, joyed, and sorrowed. With sand have I been buffeted withal, scourged, purified, and blessed. In sand have I lived ever, and in sand shall I be buried.

Pardon my emotion, but your traveler does get on my nerves with his tales of something more. This—this is life!

The nesting? Yes, yes, dear, I'll come to that. You'll be astonished, I know, when I tell you that we nest *here*. Yes, right here, on this identical beach within the city limits—horses galloping up and down on the wet sand, bathers shouting and running to and fro, children coming up here in the dry sand with their little shovels and buckets, automobiles by the hundred whirling by on the boulevard behind us. And dogs!

Taken near Santa Barbara *Photo by the Author*

THE ADVENTURER

They're the worst. When the kiddies come, all we have to do is to crouch down in the sand and keep still, or maybe hide in one of the hollows left by a horse's hoof. They can't see; or if they do, we and our babies can run away fast enough. But when the dogs come, horrid creatures! snuffling and yelping, then I have to get busy and do decoy stunts. All I can do is to trail a "broken" wing, or to flutter and teeter in hope that the sillies will come yapping after. If they do, I lead them a merry chase, and take to wing from the water's edge when they are far enough away from my babies. But sometimes they come too near, and then it's a gulp for the red-mouthed fiend and a heartache for me.

This year in April it was Teddy Sanders who laid siege to my heart and fairly wore me out with his nonsense. Why, he'd follow me round and round till I was ready to drop, and then if I'd stop to pick up a bit of a bug, he'd bunt into me and make me listen to his blarney. As if I cared for his sly winks and his quivering wings and his absurd little bows. But, finally, I married him to get rid of him, and we chose that little hummock of sand over there for our home-site. All I had to do was to crouch down and twist around and make a little hollow in the sand, and Teddy hunted up the prettiest bits of shell—he was very good about that—so by the time I had three eggs laid we had the most beautiful white lining. And one day Teddy brought a cork and laid it down beside me on the sand. And I asked him what that was for, and he said—well, he said I might find it handy when I didn't *want* to talk. But really, Teddy was awful nice; and when there weren't any people in sight, he'd come up to the mound—he liked to hear me talk all right, if he did make fun of me—until he had it all covered with toe-tracks. And then one day a man came poking along, looking and looking and looking in the sand. I slipped off when he was fifty yards away and did a special skirt-dance for his misguidance; but when he saw me he only grinned and went on looking. And then by and by he saw the tracks criss-cross on the sand, and then he saw the eggs, for his face all lighted up, while my heart stood still. But he wasn't a bad sort, after all, for he went away without even touching them.

But that afternoon the wind came up. I knew the tide was going to be high that night, and I scented trouble. Teddy stood by me as I sat tight on the eggs facing the wind. The wind freshened and shifted to the southwest. By midnight it was blowing great guns and drenching us with spray, but the tide was not due to be high till two o'clock. Well, you can guess the rest. That was an awful night. By one o'clock the water was spilling over into the lagoon, and a little later a great wave caught us and bowled us over and over before we could rise and seek shelter in the dunes. All my beautiful eggs washed away, and the whole colony—there were seven pairs of us—left desolate!

Yet that cruel, terrible ocean had the audacity to smile next day, and let its soft bosom sink and swell as if it wouldn't hurt a baby lobster. And the sun shone and the sand got dry and rustled, and—Oh, well, that same man found me two weeks later about ten feet away from where we had our first nest, sitting on three eggs that looked to him just like the first ones. Teddy hadn't been able to find as many shells this time to line the nest, but we made it near a white stick lying half-buried in the sand, so that we could see the place a long ways off. Of course the man didn't catch me on the eggs, but he found them all right, and he might have eaten them for

anything I could do to prevent. He wouldn't pay any attention to me, and the skirt-dance is no fun with nobody looking, so I gave Teddy the plover call, *Too leep, too leep*, and we went off down the lagoon and had a good bath. There is no use worrying, you know, about things you can't help.

By and by the man went way, way off and sat down. Only his eyes seemed to get bigger, or rather, he carried his eyes in a black thing that he put up in front of his regular eyes. But the wind was blowing, and I couldn't wait around all day, so I took chances and sneaked back. When I got there my eggs were almost buried out of sight in the drifting sand. I've had that happen before, of course, but I do believe that naughty man held sand up and let the wind blow it over quickly. Well, I showed him.

I stooped over each egg in turn, stuck my bill down deep under the big end and heaved up, pulling in toward my breast. One of my eggs weighs a quarter as much as I do, so that's no easy trick. Then I sat down and kicked the sand out from between each pair of eggs, tedder-fashion, and sent it skiting in a jolly shower. By the time I had gone the rounds with both operations twice, I had those buried eggs up high and dry and was making mugs at that man with the movable eyes. He took himself off after that.

But do you know that man was back the very next day with a big black box! He planted himself about forty feet away and waited. I was scared that time, for how should I know when that black thing might run at me or spread its wings or something. It evidently wasn't like a dog, for I coaxed it to eat me, and it didn't even sniff. I stayed away nearly an hour, but nothing happened. Something really had to be done, for my eggs were getting cold; so I crept back. Well, to make a long story short, that man didn't offer any sort of violence, but just crept a little closer, and made a funny noise in the black thing every time I came back to the eggs; till finally, I let him sit ten feet off and bang away all he pleased. And he was pleased, too, for he smiled and smiled all the time he was there, and he said, "Goodbye, little birdie," when he had to go away with the black box.

I never saw him again till the babies came. Then he came lugging that old black box, and I was mad. Those fluffy darlings to be gobbled up at last! I shrieked to Teddy and he came running to help. We had the babies scattered and we told them to be perfectly still, and they were very obedient. They look just like little dried kelp-pods, anyway, and it takes a sharp eye to find them. But this man worked for an hour till he had all the little innocents rounded up and deposited in his hat. Then he set this hat crown down, upon the sand, and went away. Teddy and I came back and ran round and round the hat till we had a path worn in

the sand, but we couldn't find the children, although we kept calling and calling and heard them peeping all the time. By and by one spilled out of the sky and then another, and then the hat blew over, for the wind was freshening, and we dug under the brim to let the last baby out. This time we hid those babies in good earnest, and told them to keep absolutely still. Poor little Nivvy! I think the man saw him, though he didn't touch him. We found him facing the wind half buried in the sand with his poor little eyes wide open, but each covered with a wet mound of sand.

Oh, must you be going, Tillie? Yes, I believe it is time for a bite. And there is Nivvy, now, chasing a bug over by that Hermit Crab pool. Nivosa! come here this minute! Those youngsters are *so* careless. Yes, dear! I'll see you next spring—if the Caranchos[1] don't get you.

No. 259

Belding's Plover

A. O. U. No. 280. **Pagolla wilsonia beldingi** Ridgway.

Synonyms.—Wilson's Plover. Western Wilson Plover.

Description.—*Adult male in summer:* Above pale grayish brown, varied by paler edgings, approaching fulvous on crown and hind-neck; a short black bar across forehead; a blackish loral stripe from bill to eye; a short superciliary and forehead, clear to base of bill, white; a broad black band across chest terminating on sides of cervix; remaining underparts pure white; wing-quills and exposed tips of tail brownish dusky; shaft of first primary conspicuously white. Bill relatively large, black; feet and legs flesh-colored; no colored ring around eye; iris brown. *Adult male in winter and female in both seasons:* Similar to male in summer, but black of head and chest scarcely showing—dark gray instead, or gray with a fulvous tinge. *Immature:* Like adult in winter, but no suggestion of black in gray of head and chest. Length of adult: 190.5-203.2 (7.50-8.00); wing 114.3 (4.50); bill 21.6 (.85); tarsus 30.5 (1.20).

Recognition Marks.—Towhee size; beach-haunting habits. Distinguished from *Charadrius semipalmatus*, with which alone it could be confused, by its slightly larger size, by its longer, stouter legs, and by its relatively immense beak—more than twice as large.

Nesting.—Not known to have bred in California. *Nest:* A slight hollow in the beach sand, lined, or not, with bits of shell. *Eggs:* 3, rarely 4; pale olive-buff to olive-buff, sharply, finely, and rather heavily marked with black. Av. size 35.56 x 26.67 (1.40 x 1.05). *Season:* May–June.

Range of *Pagolla wilsonia.*—Coasts of southern North America and northern South America.

Range of *P. w. beldingi.*—Pacific Coast from Lower California and Sinaloa to Peru.

Occurrence in California.—Casual at San Diego: several ascriptions, but first definite record that of June 29, 1894 (Ingersoll).

[1] South American Carrion Hawk. (*Polyborus tharus*)

Authorities.—**A. M. Ingersoll** (*Aegialitis wilsonia*), Nidiologist, vol. ii., 1895, p. 87 (Pacific Beach, San Diego Co., June 29, 1894, 1 spec.); *ibid.*, Condor, vol. xx., 1918, p. 187 (Imperial Beach, San Diego Co., May).

A SINGLE example of this southern species, a male, was found by Mr. A. M. Ingersoll at Pacific Beach, San Diego County, on the 24th of June, 1894. It was in close company with a group of Snowy Plovers which nested at that spot, and it shared in the most marked degree their solicitude over an imperilled set of eggs. Mr. Ingersoll concluded, however, after careful study, that the visitor was unmated, a wanderer from the south, and he collected it five days later.

The Wilson Plover is known to occur on the coasts of Lower California, but its status as a resident of that region is still unsettled. It is essentially a beach bird, active and very noisy, and not likely to be confused with our modest "Snowy."

No. 260

Mountain Plover

A. O. U. No. 281. **Podasocys montanus** (J. K. Townsend).

Synonym.—Prairie Plover.

Description.—*Adults in breeding plumage:* Upperparts uniform grayish brown (hair-brown or "snipe-gray"), typically pure but occasionally washed with ochraceous or tawny; underparts white, without black collar, but sides of breast like back, and an obscure wash of this grayish shade across breast; a bar on fore-crown and a loral line from bill to eye black; forehead and superciliary white; primary coverts, wing-quills, and exposed portion of tail chiefly blackish. Bill black; legs dusky, feet blackening. *Adult in winter:* Duller, without black; the upper plumage, cheeks, and sides of breast skirted with ochraceous and tawny; wash of breast darker. *Immature:* Like adult in winter, upper plumage still more extensively rusty with broad skirtings; ground-color a little darker. Measurements, av. of 10 Cal. specimens: length 231 (9.10); wing 145.3 (5.72); tail 62.4 (2.46); bill 21 (.83); tarsus 39.9 (1.57).

Recognition Marks.—Size and general proportions of Killdeer, but stands higher; *no* black on chest, distinctive; no black on head in plumage usually seen; prairie- or plain- rather than beach-haunting.

Nesting.—Does not breed in California. *Nest:* A "scrape," or slight hollow, on the ground of bare prairie. *Eggs:* 3 (4 of record); ovate, less pointed than those of other plovers; deep olive-buff to dark olive-buff, boldly and rather heavily spotted with black, the spots much larger than those of the *Charadrius* group. Av. size 37.6 x 28.2 (1.48 x 1.12); index 75.6. *Season:* May; one brood.

General Range.—Breeds on the arid plains east of the Rocky Mountains from northern Montana to northern New Mexico and northwestern Texas. Winters from northern California and northern Texas south to Lower California and northern Mexico.

Distribution in California.—Not common spring and fall migrant and winter resident, chiefly in the San Joaquin-Sacramento basin, with adjoining western valleys, and in the southern district. Has been recorded on San Clemente Island. Also two coastwise records from Santa Barbara: Oct. 19, 1912, and Aug. 25, 1915.

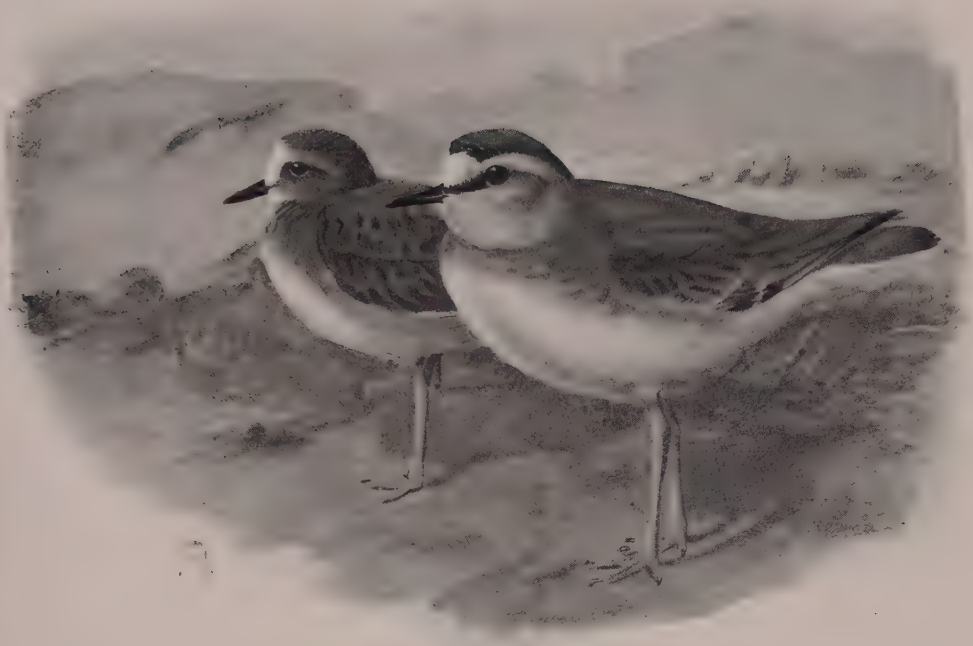
Authorities.—**Gambel** (*Charadrius montanus*, Jour. Acad. Nat. Sci. Phila., ser. 2, i., 1849, p. 220 [coast of Calif.]); *Shufeldt*, Jour. Anat. and Physiol., vol. xvii., 1883, p. 86, pl. (osteology); *Bradbury*, Condor, vol. xx., 1918, p. 157 figs. [Calif.; nesting habits; desc. and photos].

PODASOCYS MONTANUS is no more to blame for the name he bears than we are for our names, sur- and Christian. He was not consulted at the christening. *Podasocys* isn't so bad, when we know that it is a Homeric epithet meaning swift-as-to-his-feet, but *montanus* is a sheer misnomer. The bird is a plainsman. In summer he dwells in peace upon the prairies which stretch to the eastward of the Rocky Mountains from New Mexico to the northern boundary of the States, and according to all authorities there is no loneliest township in western Kansas nor waterless desert in Wyoming which will not yield an all-sufficient harvest of grasshoppers. As for drink, dew must suffice, as it does for prairie dogs.

Like many another prosperous farmer of the plains, our hero, when he has accumulated a generous roll (of fat), comes to California to spend the winters. True to his prairie-born instincts, he avoids both the mountains and the shores, and seeks out the level barrens of the interior. Here, it must be confessed, he and his friends have oftenest fallen among thieves. Their rolls have been taken from them without redress and only a dwindling remnant has escaped, spring by spring, to the isolated security of their summer home. For he is an easy mark, this plainsman, when he patters confidingly over a Fresno pasture or the alkaline stretches of Cholame. And he is easier still when he flies with his fellows in a huddled company which crosses the gunner's bows on the coastal plains of Los Angeles County. The Mountain Plover, once abundant, is now becoming a downright rarity, and only the most scrupulous observance of the governmental prohibition will save to us this most useful and interesting species.

Some impression of the bird's former abundance, as well as a lively account of its habits in the South comes from the pen of Elliott Coues:[1] "In the desert region of New Mexico, between the Rio Grande and the base of the mountains to the westward, I found these Plovers abundant late in June, together with the Long-billed Curlews, and presume that they breed there, although I found no nests. The old birds that I shot were in poor condition and worn plumage. A few were seen in Arizona at various seasons, but they did not again occur to me in abundance until

[1] "Birds of the Northwest" by Elliott Coues, 1874, p. 458.



MOUNTAIN PLOVER

I reached Southern California, in November of the following year. In the vicinity of Los Angeles I found them in large flocks on the dry plain which stretches down to the ocean. They were not difficult of approach, and I had no difficulty in securing as many as I desired. On being disturbed by too near approach, they lower the head, run rapidly a few steps in a light, easy way, and then stop abruptly, drawing themselves up to their full height and looking around with timid yet unsuspicious glances. Their notes are rather peculiar, as compared with those of our other Plovers, and vary a good deal, according to circumstances. When the birds are feeding at their leisure, and in no way apprehensive of danger, they utter a low and rather pleasing whistle, though in a somewhat drawling or rather lisping tone; but the note changes to a louder and higher one, sometimes sounding harshly. When forced to fly by persistent annoyance, they rise rapidly with quick wing-beats, and then proceed with alternate sailing and flapping, during the former action holding the wings decurved. They generally fly low over the ground, and soon re-alight, taking a few mincing steps as they touch the ground; they then either squat low, in hopes of hiding, or stand on tiptoe, as it were, for a better view of what alarmed them.

Taken in Colorado
Photo by Wm. C. Bradbury

THE "MOUNTAIN" PLOVER
IS A BIRD OF THE PLAINS

"The Mountain Plover's food consists principally, if not wholly, of insects. I examined the stomachs of a great many with reference to this matter, finding in them nothing whatever but insects, excepting, as usual, a little sand or gravel. Grasshoppers, in their season, seem to be the bird's main reliance, though numerous other insects, as crickets and beetles, are also eaten; and I suppose that worms and small land-molluscs would not come amiss. In the fall, when food is plenty, the birds become very fat, tender and juicy, affording excellent eating."

Although the occurrences are quite contrary to known custom, I have twice seen single examples of this bird,

both immatures, on the Santa Barbara beaches. The last seen, August 25, 1915, is also the earliest autumnal record for the State. This bird was discovered in company with Snowy Plovers on the dry sand of the upper beach, but it took early occasion to patter down to the water's edge. Here it fed freely with a little group of Western Sandpipers. Its method, however, was altogether different. Instead of the industrious dab, dab, dab of the little pipers, each tiny sand-flea cost the plover a calculated run of several paces and a leisurely stroke. Then followed a quick resumption of the erect posture, and a dignified pause. Once the saucy sea shot a wave past the plover's feet, but the plainsman, instead of taking to wing, back-pedalled with astonishing agility. This reverse motion of the legs was rather a revelation of the bird's powers, making it comparable in its realm to the hummingbird, which is, so far as I know, the only bird that can fly backward.

After this exhibition our hero retired upbeach, squatted down upon the warm sand facing the wind, and took a sound snooze—while we bewailed the absent Graflex.

No. 261

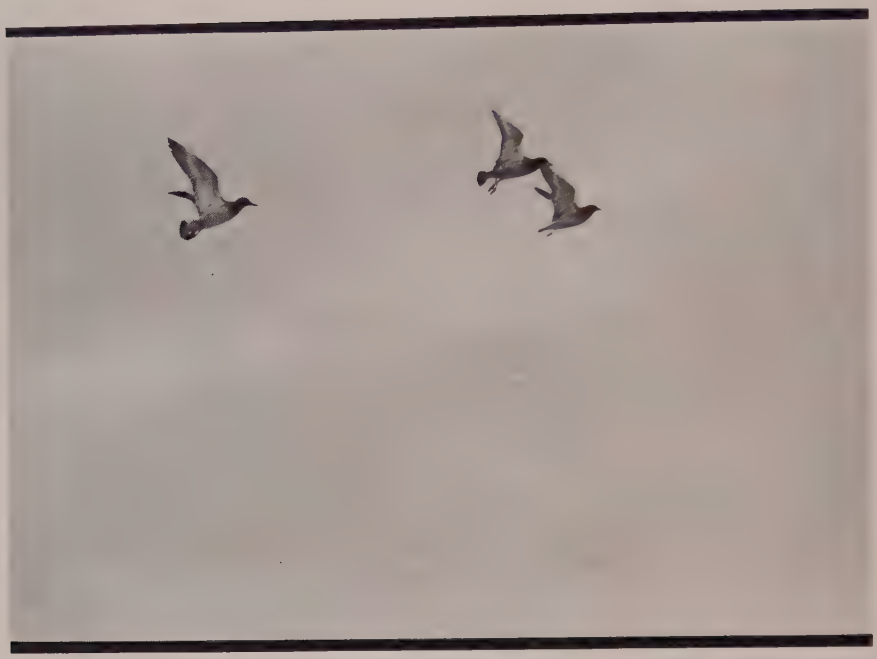
Surf-Bird

A. O. U. No. 282. **Aphriza virgata** (Gmelin).

Description.—*Adults in summer*: Above chiefly black, edged and streaked with white, in finest pattern on head and neck; on crown and cervix faintly streaked and edged with pale cinnamon; on scapulars and tertials broadly and heavily marked with cinnamon (the dominating color in highest plumage, but always sharply varied by black); wings grayish dusky, the greater coverts sharply tipped with white; secondaries extensively white, and the primaries white basally, their shafts white throughout; upper tail-coverts white-tipped, forming with the covered bases of the tail-feathers a sharply contrasting patch of white; remaining portion of tail black, narrowly tipped with white; below white, streaked and spotted with dusky, finely and narrowly on chin and throat, broadly and heavily on breast (where also tinged more or less with gray except in highest plumage), sparingly but sharply and broadly on flanks and under tail-coverts; axillars and lining of wings white. Bill black, flesh-colored at base of lower mandible; feet and legs greenish yellow. *In winter:* General pattern of plumage blended, nearly uniform grayish dusky above and on breast (but retaining definite white of wing- and tail-coverts as before); streaks of dusky persistent on sides of head, chin, and throat, upper belly, crissum, and on lower sides. Measurements (av. of 17 specimens): length 278.4 (10.96); wing 165.3 (6.51); tail 70 (2.756); bill 24 (.945); tarsus 31.4 (1.24).

Recognition Marks.—Robin size. General streakiness with *short* bill, *white* rump, and white wing-patch distinctive, as compared with *Heteroscelus incanus*; larger size and less heavy coloration, as compared with *Arenaria melanocephala*. Inhabits rocks and lives close to water's edge, so not likely to be confused with species other than those named.

Nests and **Eggs** unknown.



Taken at Coronado Beach *Photo by Donald R. Dickey*

SURF-BIRDS A-WING

General Range.—The Pacific Coast of the Americas, breeding presumably in northwestern Alaska (Kowak River), and although wintering north as far as southeastern Alaska (Willett), migrating south to the straits of Magellan.

Occurrence in California.—Not common migrant coastwise. Of regular occurrence at certain "ports of call," rocky headlands, or secluded bays dotted with rocks, both in spring and fall. Casual in winter—Monterey, Jan. 12 (Grinnell).

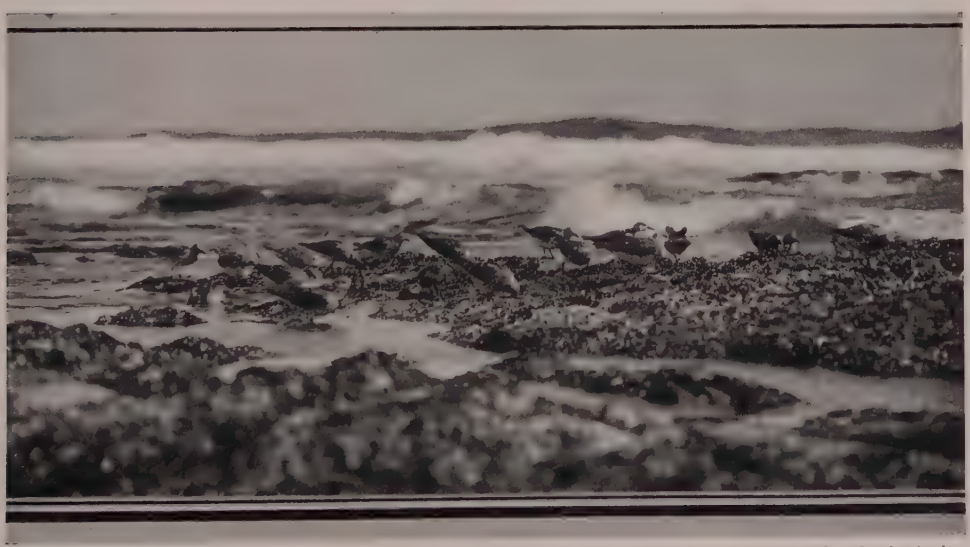
Authorities.—Heermann, Rep. Pac. R. R. Surv., vol. x., 1859, p. 64 (Farallon Ids.); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 50 (s. Calif. ids.); *Dawson*, Condor, vol. xv., 1913, p. 5, figs. (Santa Barbara; photos).

THE LATIN word *ignoramus* practically summarizes our knowledge of the Surf-bird after a century and a quarter of scientific contacts. Records of occurrence, beginning with that of Gmelin, published in 1789, are still slowly accumulating. The bird's known range has been from the type locality of Prince William Sound north to the Kowak River in Alaska, and south to the Straits of Magellan. The species is of fairly regular but by no means common occurrence at certain favored stations, chiefly rocky points along the California Coast, during May and September, and there are scattering summer and winter records. Yet for all these "records," there is not in all ornithological literature combined a spoonful of meat regarding the Surf-bird's habits or song or psychology.

Its nesting haunts, indeed, are still unknown, being vaguely surmised to exist somewhere in the interior of northwestern Alaska. Grinnell came nearest to striking the Aphrizine gold-ledge when he secured three specimens on the 29th of May, 1899, some forty miles up the Kowak River; for his Indians recognized the bird by name and affirmed that it nested about certain small lakes in the tundra near the Selawik Mountains. Unfortunately, he was not able to visit the indicated spot.

On a blowy day in May, 1912, the 3rd it was, one of my boys and I lugged the camera across a plowed field toward a rocky point some ten miles west of Santa Barbara. Peeping cautiously over the brow of the cliff we descried a large company of mingled Shags and Surf-birds[1]. The cormorants rose hurriedly and after them the Aphrizids, but the latter settled again while we accomplished a long detour which brought us up, panting, behind a line of rocks substantially on a level with our prizes. I snapped hurriedly at 150 feet, then set out more carefully to make a series of photographic approaches. First, I crept on hands and knees across the upper beach to a jutting rock which offered a little shelter; then advanced by slow stages in a direct line. What matter though the sand was wet and plastered here and there with blobs of crude oil! Were they not *Surf-birds!* Ever and again I snapped. At the sixty foot range a jealous wave engulfed me as I squatted Turk-fashion upon the sands. No matter. It would not do to put the cause to hazard

[1] The substance of this account was published in *The Condor*, Vol. XV., January, 1913, pp. 5-8.



Taken near Santa Barbara *Photo by the Author*

SURF-BIRDS FEEDING ON REEF

by rising. "Snap" went the latch, and "roar" went the shutter, till the first relay of plates, carried in the game pocket of an old hunting coat, was exhausted.

Retracing my steps as cautiously as I had come, I secured another batch of plates and returned to the fray. This time I succeeded in reaching the reef itself and in lessening the distance to some forty feet—a score of Surf-birds at forty feet! They rose at length, for there were timorous souls among them, but they returned or ever I had reached the base of

Taken near Santa Barbara
Photo by the Author

SURF-BIRDS—SHIFTING

supplies. The tide was low and the quarry safe, so we indulged a much belated cold lunch of bread-and-butter, omelette, and cake, all sugared impartially with fine sand. Then I resumed the quest, pausing only to note that the Surf-birds were themselves busily engaged in feeding upon the white barnacles which covered the reef. These seemed to form their exclusive diet for the time; and it was interesting to see a bird get a good grip on a reluctant cirriped, then brace and haul him out by main force. It was yeoman service, and many a bill was smeared with bug juice, not to mention "biramous cirri" and other delicate crustacean apparatus.

There were about twenty of the birds, twenty-three to be exact, and one Black Turnstone kept with them most of the time, although he might have found plenty of his own kind not far away. Once the Surf-birds deserted him and left him trembling on the rock; but I was unprepared to utilize the superb pose which his lonely plight presented a moment later, and he made off with startled cries. As for the Surf-birds, as often as they were dislodged they retired to a strip of sand a few rods away and fell to gleaning like pipers.

On my last sally from the base of supplies I was determined to press advantage home. The gulls, who would fain have occupied the reef themselves, shrieked warnings when they saw me advancing upon the unsophisticated Surf-birds. The latter gave attention, indeed, but would not heed the repeated warnings. My advances had only the effect of bringing all the flock together, whereas otherwise they would have scattered over the entire ledge of, say, a hundred feet length. Now and again the flock shifted, but always they came back, alighting at the extreme tip of the reef where the waves frequently bandied them. For the most part they fed silently, but as often as I made some unusual demonstration, or as often as the wave swept about them, a murmur of complaint arose. The flock came to attention, or a few shifted position if the water was actually too deep; but the moment danger was over, work was resumed upon the barnacles.

My last exposure, the last of twenty-one plates, was made at a distance of eighteen feet, and at that range only half of the flock would go on the plate. The exposure (f. 16, 1-140) was perfectly timed, and it marked, I am proud to confess, the most thrilling moment of a twenty-year experience in bird photography.

Taken near Santa Barbara *Photo by the Author*

SURF-BIRDS—THE PARTING SHOT

No. 262

Turnstone

A. O. U. No. 283. **Arenaria interpres interpres** (Linnæus).

Synonyms.—Calico-back. Calico-bird. Brant Snipe. Brant-bird. Checkered Snipe. Stone Snipe. Horsefoot Snipe.

Description.—*Adult in summer:* Back, scapulars, etc., variegated black and chestnut-rufous, with a little white edging; the black pure on sides of neck or "shoulders," and continuous with that of chest; rufous predominating on wings; upper lores, cheeks, sides of throat, foreneck and sides of breast glossy black; throat and lower lores pure white, and the remaining portions of head and neck impure white, the crown heavily or lightly streaked with black; rump, basal portion of tail, with lateral and longer upper coverts, the greater wing-coverts (principally), and the remaining underparts entirely, white; basal portion of upper tail-coverts, and subterminal portion of tail, black, the latter tipped narrowly with white and rufous; more or less concealed white on primaries;—altogether a piece of patch-work in three colors. Bill short, stout, sharpened, but not acute, slightly upturned, black; feet and legs bright orange, blackening at the joints. *Winter plumage:* Without rufous; the black mostly replaced by brown, and the rufous by gray; black of breast much restricted—patchy or spotted; chin and throat and sometimes belly faintly roseate. *Immature:* Similar to adult in winter, but with some ochraceous margining above; head chiefly dusky, the fore-neck clouded with dusky. Length 228.6-254 (9.00-10.00); wing 146.1 (5.75); tail 58.4 (2.30); bill 22.9 (.90); tarsus 25.4 (1.00).

Recognition Marks.—Robin size; patch-work in rufous, black, and white above; black and white below; beach-haunting habits. In winter variegated both above and on breast, as distinguished from the more solid black of *A. melanocephala*.

Nesting.—Does not breed in California. *Nest:* A hollow in the ground or pebbly beach, scantily lined. *Eggs:* 4; olive-buff, deep olive-buff, or dull water-green, intricately and sometimes obscurely marked with olive-browns of several shades and some vinaceous gray. Av. size 42.2 x 30 (1.66 x 1.18); index 71. *Season:* June–July; one brood.

Range of *Arenaria interpres.*—Nearly cosmopolitan; breeds in northern portions of Northern Hemisphere south to the Yukon Delta and Japan.

Range of *A. i. interpres.*—As above, except North America east of the Mackenzie delta, the eastern seaboard of North and South America, and the Americas interiorly during migrations.

Occurrence in California.—Common during migrations, especially coastwise. Spring: Santa Barbara, Apr. 25–May 10. *Fall:* Santa Barbara, July 25–Oct. 2. Casual in winter.

Authorities.—**W. E. Bryant,** Proc. Calif. Acad. Sci., ser. 2, vol. i., 1888, p. 44 (Farallon Ids.); *Bowles and Howell,* Condor, vol. xiv., 1912, p. 11 (Santa Barbara, migr. dates); *Howell,* Pac. Coast Avifauna, no. 12, 1917, p. 50 (s. Calif. ids.).

No. 262a Ruddy Turnstone

A. O. U. No. 283a. **Arenaria interpres morinella** (Linnæus).

Description.—"Similar to *A. i. interpres,* but coloration lighter; adult male in summer with cinnamon-rufous areas on upperparts relatively much more extensive, and black areas correspondingly more restricted, and black streaks on pileum narrower; adult female in summer with cinnamon-rufous mostly replacing grayish brown on upperparts; wings and tail averaging decidedly shorter" (Ridgway).

Range of *A. i. morinella.*—Breeds in Arctic America east of Alaska, and migrates south through North America, but chiefly along the Atlantic seaboard through the West Indies and along the Caribbean coast of Central America to Brazil.

Occurrence in California.—Not clearly distinguished from that of *A. i. interpres*. One positive record: Sunset Beach, Orange County, Sept. 20, 1907 (Ridgway).

THE WORLD has always exercised a special tolerance toward brides and grooms. Especially in the matter of dress has every indulgence been shown them, and we have beheld our fellow mortals at nuptials tricked out in trappings and draperies befitting birds of paradise, or cockatoos. In so doing, of course, we have only been aping nature, and our most bizarre effects are feeble in comparison with those achieved by nature's younger children. Turnstones in spring are the original Harlequins. Imagine a patchwork of black and white and bright chestnut so intricate in pattern as not to deserve minute description. Complete the costume with a pair of brilliant orange hose, and you have our candidate for matrimony, very conscious and quite absurd.

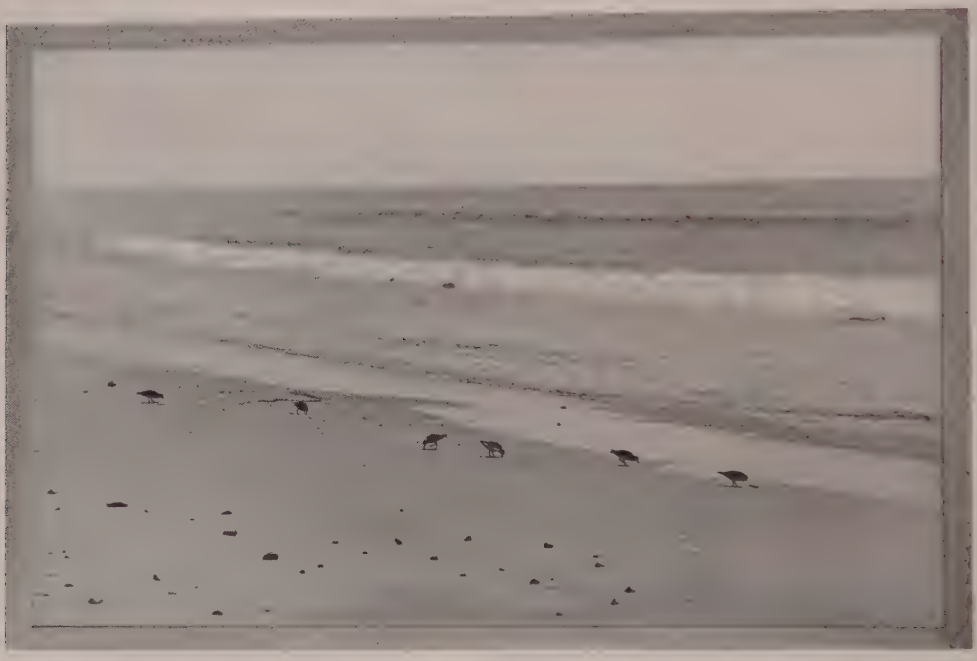
Although Turnstones winter sparingly along our shores, and especially on the Channel Islands, they are chiefly migratory. They pass rather hurriedly in spring, breed on Arctic shores, and are back again in

Photo by the Author

THE TURN OF THE TIDE
THREE RUDDY TURNSTONES AT SANDYLAND

early August almost before we have had time to miss them. The nuptial finery has been laid aside, and although the prevailing blackish of upperparts and breast is still highly diversified by white edgings, there is no hoydenish chestnut, and we get the impression of a sober, modest, and companionable bird.

In their local rangings, sand beaches have first choice, and to see the pied pipers pattering after the retreating wave, or else submitting to its playful buffeting, is indeed a pretty sight. Here also the birds



Taken at Sandyland *Photo by the Author*

RUDDY AND BLACK TURNSTONES

scratch, after the manner of chickens, earning thereby the name Chicken Plover. Or if they tire of the sand, they patter among the pebbles, upsetting industriously those which are likely to harbor hidden sweets of bug or worm. Rough, tide-washed rocks come in for second choice; and although the birds cannot do any stone-turning here, they take toll of the clinging creatures, limpets and holothurians and cirripeds, which require a poke and a pry to convince them. They mingle here with their cousins, the Black Turnstones; and although I have seen a large company of the latter receive a brighter pair with some show of haughtiness, there seems to be, for the most part, a pleasant understanding between them.

In two of the accompanying illustrations Black Turnstones are to be seen with "Ruddies," and in their passage up and down the sands the birds grouped and regrouped irrespective of species. These particular birds, encountered on the 21st day of August, 1912, proved very susceptible to judicious approach. By slow advances or by show of indirection, I got within twenty or thirty feet of them several times. Several times, also, I stood motionless down shore and allowed them to feed up toward me, which they did with little hesitation. When pressed too closely, however, they retreated beyond the reach of the waves and stood in motionless expectancy. When at last the camerist pressed his suit too ardently, the Turnstones rose and took refuge with a distant flock of Marbled Godwits. And later, because they had no real cause for complaint, the Turnstones proved an important factor in lulling the fears of those timorous fowls.

Migrations are occasionally conducted across country, and the Turnstones in this event are fond of foraging in plowed fields. The birds are silent and intent only upon feeding. This they do by advancing slowly over the ground, gleaning from its surface and turning over the clods which lie in their path to search eagerly beneath. It is rather amusing to see a bird walk up to a clod bigger than itself and several times as heavy, insert its beak, and give an odd little bunt with an upward jerk which sends the clod rolling a foot or more. Sometimes a lump of earth, more firmly imbedded, offers resistance, in which case the bird will make another honest effort or pass on unconcerned.

In flight the Turnstones bunch closely at first, but afterwards scatter a little more widely, and wheel and turn after the manner of Killdeers in autumn. The chief impression is of flashing white, as they quarter before the sun, or as they settle again in some distant portion of the field with wings daintily uplifted.

BREAKFASTING

THE 2ND AND 4TH BIRDS, FROM THE LEFT, ARE "BLACKS"

Photo by Dickey

THE CRASH
BLACK TURNSTONES AT CORONADO BEACH

No. 263

Black Turnstone

A. O. U. No. 284. **Arenaria melanocephala** (Vigors).

Synonym.—Black-headed Turnstone.

Description.—*Adult in summer:* Color-pattern of plumage somewhat as in preceding, but without chestnut; whole head, neck, upper back, and breast brownish black, varied by sooty centers of feathers, glossed with greenish on crown and back, shading by white tips of feathers on breast into white of underparts; a white loral spot and some speckling of white on forehead, and on sides of head, neck and breast; lower back, rump, and upper tail-coverts white, the last-named with included central patch of black; wings and tail as in *A. i. morinella*. *Adults in winter:* Similar, but head, chest, and neck uniform sooty black. *Immature:* Like adult in winter, but head grayer and back with buffy edgings. Measurements (av. of 10 specimens from Alaska): length 242 (9.53); wing 146 (5.75); tail 63.9 (2.52); bill 23.1 (.91); tarsus 27 (1.06).

Recognition Marks.—Towhee to robin size; absence of rufous, with foreparts chiefly black, distinctive in summer; but requires careful discrimination from Surfbird (*Aphriza virgata*), whose foreparts are chiefly dusky in winter plumage.

Nesting.—Does not breed in California. *Nest:* A mere depression in sand of seabeach. *Eggs:* Much as in *A. i. morinella.* Av. size 40.6 x 27.9 (1.60 x 1.10) (Read). *Season:* June; one brood.

General Range.—Breeds in western Alaska from the valley of the lower Yukon at least to Kotzebue Sound. Occurs casually (?) to Point Barrow and Wrangel Island. Winters south to coasts of Lower California.

Occurrence in California.—Common along the coast, and especially on exposed or rocky portions, during migrations. Less common in winter on mainland coasts, but fairly abundant on the Santa Barbara Islands. Non-breeding birds of casual occurrence or even local abundance in summer.

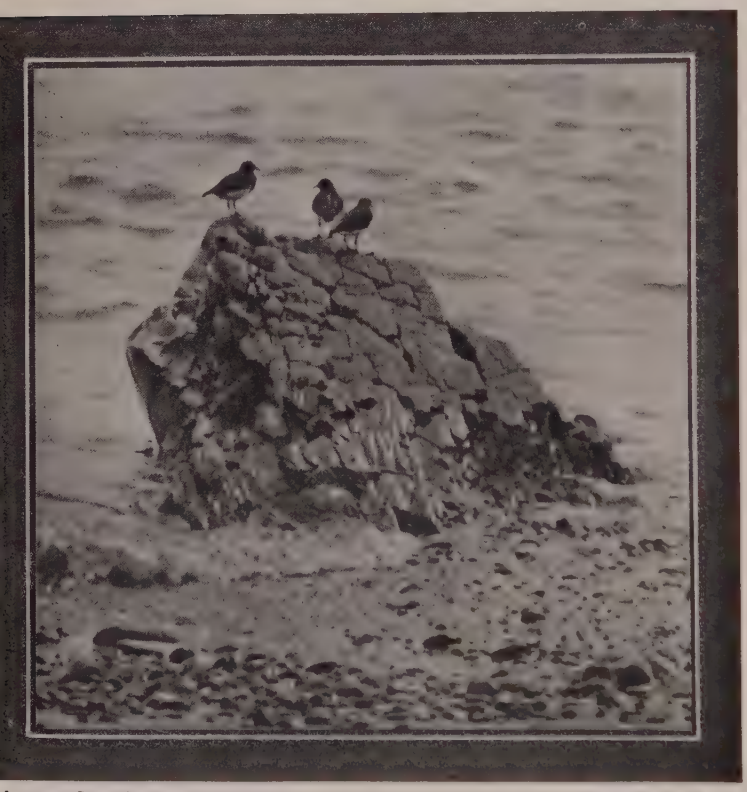
Authorities.—**Gambel** (*Strepsilas melanocephala*), Jour. Acad. Nat. Sci. Phila., ser. 2; i., 1849, p. 220 (San Pedro; Monterey); *Bowles and Howell,* Condor, vol. xiv., 1912, p. 11 (Santa Barbara; migr. dates); *Howell,* Pac. Coast Avifauna, no. 12, 1917, p. 50.

SAVE DURING the nesting season, the Black Turnstone is as characteristic of the Santa Barbara Islands and of the barnacle-covered reefs off our Pacific shores as is the Black Oyster-catcher in June. The birds move in little companies, cheered by rattling, piping cries, *Kitur, kitur;* and they seem to prefer the lowest possible reaches of the rock above the actual wash-line of the waves, where they may be wetted by incessant spray. When hushed into silence and immobility by the approach of a stranger, the birds themselves appear like little else than bunches of seaweed or knobs of the somber reef; but when reassured as to the stranger's intent, they begin to stir about and chatter. Now and then one of them runs at his fellows with outstretched bill and neck, and a fine scuffle, or flight, ensues. When they take to wing, as they do by a common flock impulse, the transformation in appearance is a delight to the eye. Instead of a row of dull-colored clods, there appears a constant cyclorama of flashing whites, set off by variegating blacks.

Taken at Coronado SEVEN BLACK TURNSTONES *Photo by Dickey*

In summer this species enjoys a rather more southerly distribution than *morinella*, being found as far south as Sitka. According to Nelson: "It breeds among the brackish pools on Saint Michaels Island, and is found scattered over the wet flats everywhere. It is one of the commonest birds of this locality, its sharp clear note breaking the silence wherever one turns his step among the pools and marshy places. It has a habit of circling round the intruder, during the nesting season, with a fine clear peeping cry like the syllables *weet, weet, too-weet*, as it moves restlessly about; now stopping a moment on a slight knoll, then running hastily along the edge of a neighboring pool, perhaps picking up a scrap of food as it runs, and then it mounts on wing again and comes careering about, evincing the liveliest distress at the invasion of its haunts."

The Black Turnstone is at no time so great a wanderer as its ruddy cousin. It does not frequent the interior nor does it go further south than Santa Margarita Island, in Lower California. While specimens may be found throughout the summer months, it is well known that these are non-breeding birds, senescents, or those which for individual reasons fail to make the northern flight. There is, thus, a fringe of local movement along the shores of the mainland at all times of the year; and the bird is one of the best-known figures of our coastal life. Rarely does it venture on the naked sands, and then only in company with more experienced Sandpipers—Sanderlings, Westerns, Ruddy Turnstones, and even Killdeers. When disturbed in such company, the Blacks will oftenest separate themselves and "haul out" upon the nearest rock, be it never so insignificant.



ken near Santa Barbara *Photo by the Author*

HE BLACK TURNSTONE IS PREËMINENTLY A ROCK-HAUNTING SPECIES

No. 264

Frazar's Oyster-catcher

A. O. U. No. 286.1. **Hæmatopus palliatus frazari** Brewster.

Description.—*Adult:* Head and neck all around slaty black; chest black, spotted and tipped with white; sides of breast sooty black; lining of wings white, varied by dusky; remaining underparts pure white, or with some dusky spotting on lower tail-coverts; back and wings dark brown; the greater wing-coverts broadly tipped with white, and forming with some of the inner secondaries a heavy transverse bar; exposed primaries and tip of tail blackish; the upper tail-coverts laterally, and on their distal portions centrally, white. Bill vermilion; a red ring around eye; iris orange-yellow; feet and legs pale purplish flesh-color. *Immature:* Much like adult, but head brownish black, and brown of upperparts varied by buffy edgings. Measurements (of the two extant California specimens): length 450 (17.72); wing 270 (10.63); tail 102 (4.02); bill 77.5 (3.05); tarsus 57 (2.24).

Recognition Marks.—Crow size; black and white plumage with long red beak and island haunts distinctive.

Nesting.—Does not breed in California. *Nest:* A mere depression in shingle or gravel of upper beach, lined or not with bits of shell. *Eggs:* 2 or 3; ovate, pale olive-buff or rarely olive-buff, spotted or marked boldly and rather sparingly with brownish black and subdued under-shell markings of violet-gray. Av. size 52.3 x 37.6 (2.06 x 1.48); index 71. *Season:* May; one brood.

Range of *Hæmatopus palliatus.*—Coasts and adjacent islands of the Americas. Upon the east coasts from Virginia to Argentina and in the West Indies; on the west coasts from the northern borders of Mexico south to Chile.

Range of *H. p. frazari.*—Resident upon both coasts of Lower California and on the western coast of Mexico, with their adjacent islands.

Occurrence in California.—Formerly of regular occurrence, and breeding at least as far north as Santa Barbara Islands; now a "rare straggler from farther south during late summer" (Howell).

Authorities.—**Baird, Brewer and Ridgway,** Water Birds N. Amer., vol. i., 1884, p. 112 (San Diego and Santa Barbara Ids.); *Evermann,* Auk, vol. iii., 1886, p. 92 (Ventura Co.); *Cooke,* U. S. Dept. Agric., Biol. Surv. Bull., no. 35, 1910, p. 99 (distr.).

TO A STUDENT of world ornithology the phylogeny of the Oyster-catchers makes instant appeal, by reason of its simplicity and its clear-cut distinctions. There are two types of Oyster-catchers, the all-black and the black-and-white. That the distinction is as ancient as it is clear-cut goes without saying, for the black-and-white type has split up into nine different species, or races; while the all-blacks boast at least four forms entitled to specific rank. Together these 13 species occupy the major coasts of the world. But the significant thing is that the two types, necessarily evolved in widely sundered regions, now overlap each other through immense stretches of coast-line, notably in Australia, South America, and Africa. In three instances, at least, this overlapping

amounts to joint occupation of territory during the breeding season; and there are stations, for example, King Island, in Bass Strait, off the coast of Australia, where both species breed in indiscriminate proximity. And, lastly, there is occasion to believe that some hybrids have resulted from the association of these long-separated stocks.

The familiar species of the California coast is, of course, *H. bachmani*, an all-black type. *H. frazari*, resident on the coasts of Lower California, is a black-and-white, closely related to and perhaps only a subspecies of the dominant *H. palliatus*, of eastern North America, Mexico (both coasts), and South America. By reason of its conspicuous coloration, as well as its excessive noisiness, the Frazar Oyster-catcher has suffered a fatal prominence. Its former appearances on the Channel Islands (as far north as Ventura County) were concluded by an early martyrdom, and the species is rare even in its primitive fortresses on Los Coronados Islands.

Owing chiefly to unsettled political conditions, the ornithology of Baja California remains unwritten. Some few notes we have from early ornithological explorers. Thus, one by Walter E. Bryant written thirty years ago[1]: "I found this Oyster-catcher tolerably common at Magdalena Bay and northward, and on Santa Margarita Island they were mated in January. They were rather shy, running rapidly on the beach, and if approached, taking wing with loud, clear, whistling notes, and after flying some distance, alighting again at the water's edge. Their food was chiefly small bivalves found on the gravelly beach."

No. 265

Black Oystercatcher

A. O. U. No. 287. **Hæmatopus bachmani** Audubon.

Description.—*Adult:* Head and neck slaty black; remaining plumage sooty black, lightest (dark sooty brown) on back. Bill and eyelids vermilion; irides yellow; feet and legs pale old rose or flesh-color; nails black. *Immature:* Sooty black varied by rusty edging of feathers. Bill shorter, pointed, dusky. *Downy young:* Ashy gray, striped above with black. Length of adult about 444.5 (17.50); wing 254 (10.00); tail 114.3 (4.50); bill 76.2 (3.00); tarsus 57.2 (2.25).

Recognition Marks.—Crow size; uniform black plumage; vermilion beak.

Nesting.—*Nest:* A pint of rock-flakes, placed on rock or reef just above the tide-line. *Eggs:* 2 or 3; olive-buff of varying shade, spotted boldly but often sparingly with black and dark brown, with some imbedded markings of violet-gray. Av. of 17 eggs in the M. C. O. coll.: 56.1 x 38.9 (2.21 x 1.53); index 69.2. *Season:* c. June 1st; one brood.

[1]Proc. Calif. Acad. Sci., 2nd series, Vol. 2, 1889, pp. 275, 276.

General Range.—Pacific Coast of North America from Lower California north to the Aleutians; the Kurile Islands; breeding throughout most of its range, south at least to Los Coronados Islands; and wintering south from southern British Columbia.

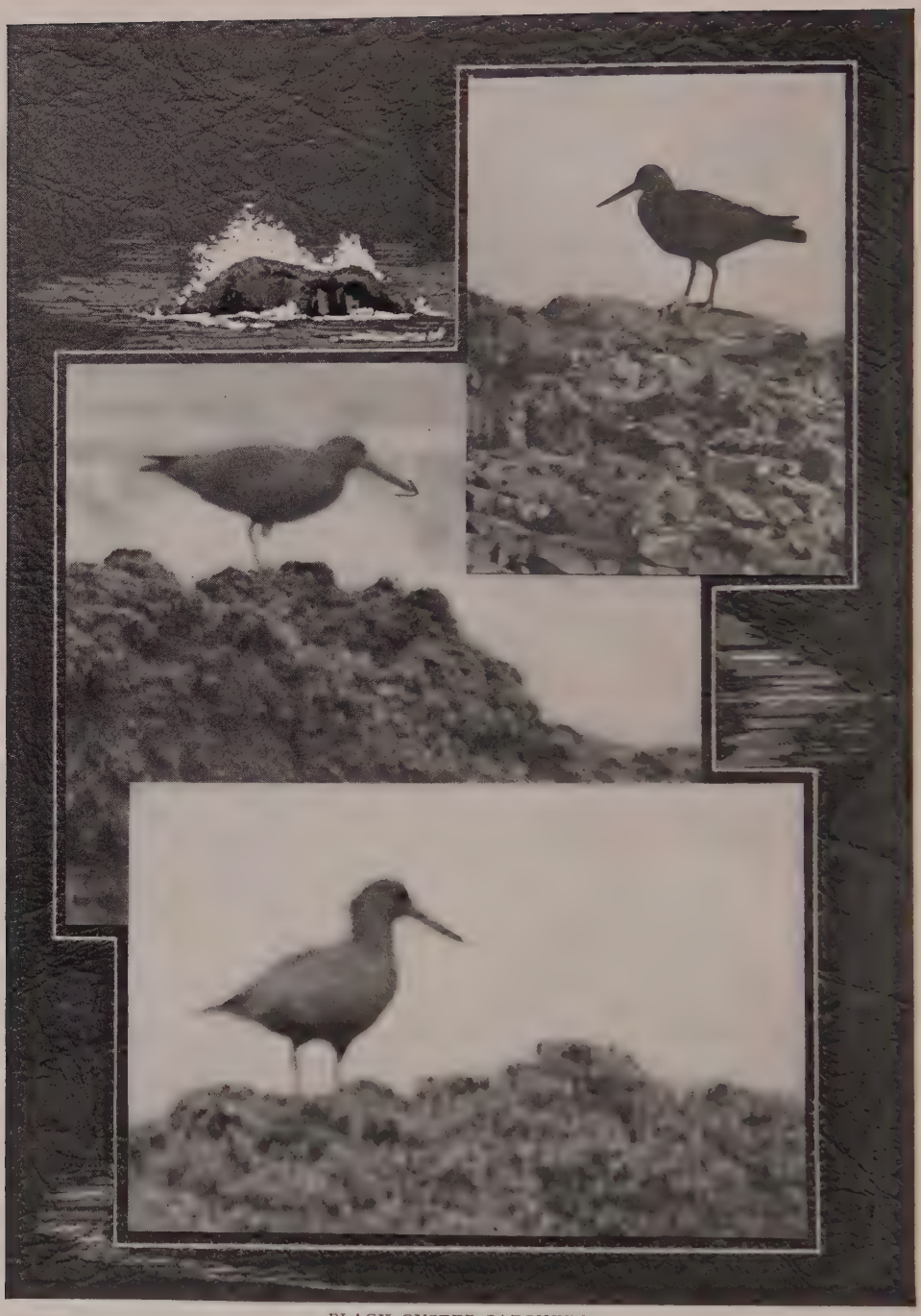
Distribution in California.—Fairly common resident on the coastal islands south to San Clemente; and common visitor to rocky or exposed portions of adjoining coasts.

Authorities.—Gambel (*Haematopus ater*), Jour. Acad. Nat. Sci. Phila., ser. 2; i., 1849, p. 221 (San Pedro); *Willett*, Condor, vol. xi., 1909, p. 186 (San Luis Obispo Co.; desc. nest, eggs, habits); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 51 (s. Calif. ids.).

PROSY hedgerows and quiet duck-ponds for such as like them; but roaring reefs and a pounding sea for the Black Oyster-catcher! And what more romantic spot to charm the eye and fire the imagination than a bird rock in the blue Pacific! The fog, it may be, shrouded the entire scene at daybreak, but as we launch out from the surf at nine o'clock, it is clearing away, and only stray wisps of mist cling about the battlements of the promised isle, a league offshore. As we approach, uneasy gulls and inquiring puffins pass near us overhead, the former drifting up as though casually, but quavering suspiciously; the latter including us upon the rim of great circles several times repeated, and checking their flight each time sufficiently to survey us with grave and careful curiosity. The cormorants begin to shift uneasily upon their nests, while disengaged members of their company join the increasing ranks of scouts. Marauders are not so little known that the approach of mysterious strangers can be regarded calmly.

But the official greeting of the motley host is extended by the Black Oyster-catcher, the self-constituted guardian of all sea-girt rocks. He has had his eye upon us from the moment of launching, and when we are within a hundred yards, mindful of his brooding mate or the secreted babies, he flies straight out to meet us and quavers a boisterous welcome, a welcome wherein anxiety is veiled by effusiveness. His effusiveness, moreover, is not unmingled with sarcasm, as who should say, "Good morning, gentlemen, good morning. Ah, you are officers of the law, I perceive, and armed with a search warrant. Quite proper, quite proper! Help yourselves, gentlemen. If I can be of any assistance to your worthy cause, command me."

And so the garrulous old marshal goes back shouting and chuckling. Once out of sight behind the rock, he repeats hurried instructions to his children to remain hidden in their crevices; then, ever mindful of appearances, he hurries forward again, beaming with virtuous importance, and vociferating shrilly, "No, gentlemen, there is nothing the matter. I have been clear around the island and there isn't a thief in sight. But help yourselves, gentlemen. Oh, yes, help yourselves. Doubtless *you* are experts."



BLACK OYSTER-CATCHERS

THE LOWEST BIRD PHOTOGRAPHED BY DICKEY ON ANACAPA ISLAND, THE UPPER TWO BY THE AUTHOR ON DESTRUCTION ISLAND, OFF THE COAST OF WASHINGTON

Anon, birdlums! We are very much occupied just now with the problem of landing. Our island is nearly surrounded by rocky shoulders which are covered only at highest tide, and upon one of these, on the lee side, we hope to disembark. Albeit there is little breeze, there is a heavy swell running, and the boatman sculls cautiously as we draw near. Just as we prepare to leap ashore with the cameras we are swiftly upborne by

Taken near Pizmo *Photo by the Author*

AN ISLAND FORTRESS

a quartering sea. "Look out!" the oarsman cries sharply, and we crouch in terror as the dory seems about to be dashed in pieces upon the flooded reef. But the boat just clears in the recoil and we go down, down, while a swift pageant of mussels, barnacles, sea-urchins, and bright-hued anemones shoots past us, sputtering and choking at the sudden exposure to air. When we do effect a landing, we must scuttle for safety before the next wave reaches, with a dull chug of satisfaction, our recent landing place.

The lower levels of the bird-rock are sacred to the Oyster-catchers, and these engage our attention at once. Very diverting creatures they are at any time, but never more so than at close quarters. As large as domestic fowls, with sooty black plumage, they are provided with stout feet and legs of a pale flesh-color, and a strong chisel-shaped bill of a bright vermilion hue. The yellow eyes are surrounded by rings of carmine, which impart a droll appearance to these wags in feathers; and in the midst of most earnest floods of bombast, they cannot forbear tipping you sly winks, like auctioneers.

Now and then one will alight quite near and stand for a moment

looking very big and bold. Then he will draw his head in and settle his body lower on the legs and sneak off, glancing furtively over his shoulder to see if his movements are being shadowed. Without question he is trying to develop the kind and degree of our interest. If the female was sitting upon eggs she slipped away too soon to be caught at home, and she spends the entire time of our stay arranging elaborate pantomines for our misguidance. Now she bends with quivering wing and dips her head up and down, as though inviting attention to her charming nestlings. "Ar'n't they darlings?" (She means a heap of mussel shells just before her eyes). Or again she settles down upon a barnacle-covered rock and broods virtuously—on barnacles.

And if, by any accident, one does become possessed of the real secret, it is great sport to devise a stealthy return and to watch the bird steal away from the eggs, slowly, painfully, in abject humiliation, hoping against hope that she is eluding observation, until a safe distance is reached. When the game is "all off" the birds cause the rocks to resound with their strident cries, and if there are neighbors, these join forces with the immediately besieged ones until our ears ache.

Photo by the Author

1350 A HARD CRADLE

NEST OF BLACK OYSTERCATCHER ON DESTRUCTION ISLAND

Left to themselves, the birds are no Quakers, and the antics of courtship are both noisy and amusing. A certain duet, especially, consists of a series of awkward bowings and bendings, in which the neck is stretched to the utmost and arched over stiffly into a pose as grotesque as one of Cruikshank's drawings,—the whole to an accompaniment of amorous clucks and wails.

The eggs of the Black Oyster-catcher, normally three in number, are oftenest placed in the hollow of a bare rock, lined with a pint or so of rock-flakes, laboriously gathered.

Taken in Washington *Photo by the Author*

YOUNG OYSTERCATCHER, HIDING

In default, apparently, of suitable stone-chips, the bird will utilize bits of shell, rounded pebbles, or, still more exceptionally, grass. The use of pebbles serves to connect, in thought at least, the chip-lined nests with those instances, comparatively few in number, where the eggs are deposited upon unmodified beach gravel. One who has seen the Oyster-catcher's eggs lying in coarse gravel, where to the protective coloration, stone-gray with black spots and blotches, is added the almost perfect assimilation of form to that of rounded pebbles, cannot escape the conclusion that this is the typical, or ancestral, situation. That the Oyster-catchers now resort to the upper reaches of barren reefs, or to the exposed shoulders of the more ambitious rocks, may be due to intervening geological changes, resulting in a relative scarcity of suitable beaches; or it may be due to the increase

of mammal depredations, as of seals hauling out. Whatever may have induced the change in habit, it is certain that as often as the annual reproductive cycle comes around, the Black Oyster-catcher is impelled to provide for herself a hard bed, which in its essentials serves to recall the harsh setting of the ancestral beach. Thus, on a single island we have seen a beach nest, a nest which consisted of a quart of rounded pebbles culled from the same beach but carried a hundred yards or so to a bare rock twenty feet above tide, and a flake-nest consisting exclusively of sandstone chips. Another nest in our collection, taken from a rocky shoulder some ninety feet above tide, comprises only angular fragments of sandstone.

Needless to say, these Spartan cradles are not considerate of their contents. Dented eggs are common in the nests, and many an unhatched *Hæmatopus* goes rolling over the steeps. But these chosen dangers are a bagatelle in comparison with the depredations of the Raven. Little escapes his sinister eye, and an egg once marked is doomed. Ravens abound on the Santa Barbara Islands, and if it were not for them we should have, perhaps, ten times our present population of Oyster-catchers.

A young Oyster-catcher is a master at freezing, and his case is helped somewhat by rusty feather-edgings, which enable him to blend with the surroundings. When warned, he flattens to the rock with outstretched neck and bill, and nothing but the parental permission or the hand of the discoverer will absolve him from his fakir vow. That the appearance of the fledgling is not devoid of interest is testified by L. M. Turner, who says in his "Contributions to the Natural History of Alaska": "I once procured a less than half-grown bird of this species, and if any one would like to have one it can be gotten up in the following manner: Take the hinder half of a black kitten, dip about four inches of its tail in red paint, then fasten to the legs a piece of tallow candle about four inches long, jab the wick end of the candle down hard on the floor to spread it out for feet. Stand it up and heave a boot-jack at it to give the desired animation, and a good representation of a young Black Oyster-catcher will be produced, for a more comical object than a toddling Oyster-catcher is difficult to conceive."

The name Oyster-catcher is, of course, a misnomer. Oysters are not much given to sprinting anyway, and this bird is not at all interested in their ambulatorial powers; for he does not frequent sand-beaches, mud-flats, or oyster-beds. Even when visiting the mainland shore, which is not often, the bird confines its attention to the barnacle-covered rocks and high-lying mussel-beds. Its food consists of marine worms and crustaceans of various sorts, barnacles, limpets, and especially mussels. Its stout, chisel-shaped beak enables it to force an entrance into the most refractory

mussel-shell, and to sever as by a knife the strong abductor muscles, which hold the valves together. Its feet, also, are large and strong, and the toes are provided with an elaborate set of pectinations which enable the bird to maintain a footing upon the most slippery rocks. If the foothold on a sloping rock is anywise precarious, the bird retreats backward and uphill by means of these convenient calks.

There is no migratory movement, so far as we are aware, among our California breeding birds. There may be some accession to their numbers in winter because of a partial retreat of Alaskan birds, but how extensive this movement may be we have no means of ascertaining. The birds are no longer found upon the Farallons, or, more strictly, the Southeast Farallon, and there is a noticeable scarcity of them on the islands of Humboldt and Del Norte counties, due, no doubt, to human persecution rather than to any lack of local attractions.

No. 266

South American Skua

Catharacta chilensis (Saunders).

Synonyms.—Chilean Skua. Southern Skua. Sea-hawk.

Description of *Catharacta skua* Brünnich.—*Adult:* "Head and nape umber-brown; neck rather paler, the acuminate feathers streaked with yellowish brown, ruddier at the junction with the back, which is more or less streaked with rufous; wing-surface darker brown; primaries chiefly umber, the exposed basal portion of the inner webs white, forming a band which is very conspicuous when the bird is flying; quill-shafts chiefly white; tail-coverts brown streaked with dull rufous; rectrices umber; under surface up to the throat pale chestnut brown; under wing-coverts dark brown with a little rufous at times; bill black, the cere with a grayish tinge; iris dark brown; tarsi and toes black" (H. Saunders). A *melanotic* phase also occurs in which the back, wings, and exposed portions of tail are sooty black, and the remaining plumage nearly uniform sooty brown; the white patch on primaries, as before. *Immature birds* are very much like adults, but they are noticeably smaller; the sharpening as well as striation of the neck-feathers is less pronounced; and their coloration in general is duller and more blended. Length 508-558.8 (20.00-22.00); wing 393.7-406.4 (15.00-16.00); tail 152.4 (6.00); bill 57.2 (2.25); tarsus 68.6 (2.70).

Description of *C. chilensis.*—*Adult:* "Similar to the preceding species [*C. skua*] but much brighter in coloration. Forehead, crown, and occiput dark brown, hind neck brown with narrow whitish streaks, and mottled with chestnut; feathers of the mantle brown with bright chestnut central streaks; upper tail-coverts chiefly chestnut, with brown mottlings; rectrices dark brown; wings dark brown with white visible at the bases of the four outer pairs of quills, and more conspicuous on the under side; chin, throat, under neck, breast and abdomen warm chestnut; under wings, axillaries, and under tail-coverts chiefly chestnut, mottled with brown; bill reddish black; tarsi black often mottled with yellowish; toes black. Total length 21 inches [533 mm]; culmen 2.3 [58.4]; wing 15.5 [393.7]; tail 6.5 [165.1]; tarsus 2.75 [69.85]; middle toe with claw 2.8 [71.1]" (Saunders).

The South American Skua

The two specimens in the Berkeley Museum (viz., #17758 and #17759), upon which the California record in part rests, were taken in the early fall of 1910, and are both of the melanotic phase. Their measurements, wing 368.3 and 381 (14.50 and 15.00); culmen 44.5 and 47 (1.75 and 1.85); tarsi 59.7 and 59.2 (2.35 and 2.33), would further indicate them to be immature. Both on this account and because of their melanism it is impossible to discriminate as between *C. skua* and *C. chilensis*.

Recognition Marks.—Gull size and shape; dark plumage varied by rufous; black bill and feet. Any very dark gull-like bird appearing off our shores, especially if engaged in pursuing other gulls, should be carefully scrutinized, as this Skua is probably not as rare as the few specimens would indicate.

Nesting of *C. skua.*— *Nest:* On the ground, a mere depression in moss or else lined with grasses and moss. *Eggs:* 2; dark olive-buff or buffy brown, sparingly spotted or blotched with brownish olive, sepia, or, rarely, black, and dull violet-gray. Av. size 71.1 x 48.3 (2.80 x 1.90). *Season:* June.

General Range of *C. chilensis.*—The coasts of southern South America north to southern Brazil and Peru.

Occurrence in California.—An occasional visitor from the South. Three specimens taken by Beck off Monterey (Aug. 7, 1907; Aug. 4 and Sept. 21, 1910). Other "sight records" probably correct.

Authorities.—Lawrence (*Stercorarius catarractes*), Ann. Lyc. Nat. Hist. New York, vol. vi., 1853, p. 7 (coast of Calif., "off Monterey"); *Beck*, Proc. Calif. Acad. Sci., 4th ser., iii., 1910, p. 61 (Monterey Bay); *Bent*, Condor, vol. xxiii., 1921, p. 78 (status of Pacific Coast birds); *ibid.*, U. S. Nat. Mus., Bull. no. 113, 1921, p. 7 (distr.; status).

LAWRENCE'S record, published in 1853, of the taking of a Skua "off the coast of California, near Monterey," was probably a good one, but it was regarded with suspicion by timid closeteers until Rollo H. Beck, prince of pelagic collectors, reestablished its presumptive value by the capture of a specimen in Monterey Bay on the 7th of August, 1907. Two others, now in the Museum of Vertebrate Zoology, were taken by the same collector on August 4th and September 21st, 1910. The riddle was not resolved, however, until Mr. Bent's investigations[1], following Ridgway's suggestion[2], made it clear to us that the species represented was not *Catharacta skua* of the northern Atlantic, concerning which science was, naturally, so skeptical, but *C. chilensis* of the western coast of South America. Stanton Warburton, Jr., of Tacoma, took three specimens off the coast of Washington and Vancouver Island, on June 28th and 30th, 1917; and it is altogether probable that the South American Skua is a not infrequent wanderer along our entire coast line.

Bloodthirsty, ruthless, and terrible is this marauder of the seas, who not only pursues other gulls or Procellarids and obliges them to disgorge their finny prey, but feasts upon their eggs and young as well. Nothing

[1] A. C. Bent in "The Condor," Vol. XXIII., May, 1921, pp. 78-80.
[2] Robert Ridgway, "Birds of North and Middle America," part 8, 1919, p. 678.

that is succulent and weak or unwary or killable comes amiss to this blackamoor, especially at the time of year when his own young are clamoring for food. That he is brave enough none can deny, and for a man to attempt to rob his nest is a really risky piece of business. Fortunately, such unsocial graces are self-destructive. Of McCormick's Skua, a closely related species from the Antarctic, it is said that the race would perish through the speedy extermination of their customary victims, the penguins, except for the fratricidal strife which exists among themselves. Not only do they rob each other of eggs and young, but their own chicks, never more than two in number, fight each other to the death in the cradle; or else, filled with bitter humors, go wandering off to be gobbled up by hungry neighbors.

No. 267

Pomarine Jaeger

A. O. U. No. 36. **Stercorarius pomarinus** (Temminck).

Synonyms.—Pomatorhine Jaeger. Pomarine Skua. Gull-hunter.

Description.—*Adult, light phase:* Top and sides of head, upperparts (except back of neck), and crissum brownish slate or dusky; rest of head and neck and underparts white; the region of ear-coverts and around on hind-neck tinged with straw-yellow; primaries extensively white on inner webs, their shafts straw-yellow; central feathers of tail projecting three or four inches beyond most of the others, their breadth sustained to their abruptly rounded tips, which are twisted so that the lower surfaces of the two feathers are brought face to face. Bill horn-color, tipped with black; feet and legs black. *Adult, dark phase:* Entirely brownish slate, except sides of head and hind-neck often tinged with straw-yellow, as before. *Young, light phase:* Upperparts brownish dusky, the feathers of the back sparingly tipped with whitish or pale cinnamon-rufous; those of the rump and upper tail-coverts spotted and barred with the same; head, neck, and underparts white, everywhere (very sparingly on belly) streaked or barred with dusky and pale cinnamon. *Young, dark phase:* Entirely brownish slate, the underparts more or less barred with whitish or dull buffy. In the young of the year the central tail-feathers do not project beyond the others more than half an inch or such a matter. The light and dark phases described above do not represent actual dichromatism, such as exists in the case of the Screech Owl, but only extremes of coloration within which every intermediate condition may be found. The commonest form is one in which the chest is sparingly, and the sides of the breast, hind-neck, and sides are heavily barred with dusky and buffy. Length 558.8 (22.00); wing 349.3 (13.75); tail 209.6 (8.25); bill 39.4 (1.55); tarsus 53.3 (2.10).

Recognition Marks.—Large crow size (size of California Gull); uniform dusky, or dusky-and-white coloration; central pair of tail-feathers elongated, *not* tapering, apparently set at right angles to the other feathers; bill rather small for size, sharply hooked, and provided with thin "cere." Predatory in habit; oftenest found harassing other birds of same family.

The Pomarine Jaeger

Nesting.—Does not breed in California. *Nest:* On the ground, of grass and moss. *Eggs:* 2 or 3; pale olive-green or deep olive-drab, sparingly spotted with slate color and two shades of umber, chiefly at the larger end, where they become confluent (Brewer). Av. size 66 x 47 (2.60 x 1.85).

General Range.—Chiefly northern part of Northern Hemisphere. Breeds in high Arctic latitudes (north at least to Latitude 83); migrates chiefly coastwise, and winters south to Galapagos, Peru, Africa, and Australia.

Occurrence in California.—"Common fall migrant coastwise * * * * Occurs off 'Point Pinos in every month of the year' (Beck) though only common during August to October" (Grinnell).

Authorities.—**W. E. Bryant** (*Stercorarius pomarinus*), Proc. Calif. Acad. Sci., ser. 2, ii., 1889, p. 87 (San Francisco); *J. Mailliard*, Condor, vol. vi., 1904, p. 15 (San Francisco Bay); *Beck*, Proc. Calif. Acad. Sci., 4th ser., iii., 1910, p. 61 (off Point Pinos); *Cooke*, U. S. Dept. Agric., Bull. no. 292, 1915, p. 7, map (distr., migr.); *Bent*, U. S. Nat. Mus. Bull. no. 113, 1921, p. 7 (life hist.; desc. nest and eggs, etc.).

FISHER-FOLK, because of their exposed situation, have ever been at the mercy of pirates and free-booters; and the same rule obtains in the bird-world as among men. The Bald Eagle stands ready to relieve the Fish Hawk of his hardly-won prey, and the Man-o'-war-bird sweeps the southern main on a perpetual quest for fish-laden Gannets and Pelicans. In the northern waters the gentlemen of the sea are the Jaegers—hunters. Here upon wings marvelously swift and cruelly graceful, the little corsairs hurry to an fro to observe which of their fisher-friends has made a catch, and to make instant requisition of it. It may even be a Glaucous Gull that has just swallowed a herring, and if detected in the act the Gull moves off screaming, while the little bully darts at him repeatedly, and prods and browbeats him until he is glad to disgorge for the sake of being rid of his persecutor.

The Kittiwake Gull is the acknowledged thrall of this rapacious viking, and if his eggs or callow young escape the devouring beak, it is only that they may henceforth share the spoils of the sea with their merciless master. Bullies are also cowards, and it pleases us to learn that this larger species stands in awe of its lesser kinsmen, the Parasitic, and the Long-tailed Jaeger, and that it has to submit to a drubbing now and then at the hands of one or another of these peppery assailants.

Jaegers follow their victims southward in the fall, and in their movements and abundance bear pretty constant relation to those of the Terns. Beck says that they may be found off Point Pinos every month in the year, but that they are really common only during the fall migrations. It is pretty certain also that they winter to some extent all along our southern coast, but we are not able to pronounce upon their abundance relative to that of the following species.

No. 268

Parasitic Jaeger

A. O. U. No. 37. **Stercorarius parasiticus** (Linnæus).

Synonyms.—Richardson's Jaeger. Marlinspike. Gull-hunter.

Description.—Somewhat similar to preceding species, both in general appearance of plumage and in color phases, the near-adult and common form being merely *washed* with brownish on sides of breast and across throat, instead of brown-spotted-and-barred. *Adult, light phase:* Upperparts, lining of wings, sides, flanks, and crissum, grayish sooty brown, blackening on greater coverts, primary coverts, quills, and tail distally, interrupted on hind-neck and cervix by white continuous with underparts, paling on forehead and changing to white at extreme base of bill; remaining underparts, continuous with broad cervical collar, white, tinged on cheeks, sides of neck, and nape with straw-yellow; primaries whitening on concealed portions of inner webs, their shafts straw-yellow. Bill and cere brownish, blackening on tip; feet and legs black. *Adult, dark phase:* Entire plumage sooty brownish black, a little paler below (where lighter than in *S. pomarinus*). *Immature birds* are smaller, with central tail-feathers not, or scarcely, projecting, and have chiefly nebulated plumage below, with admixture of pale cinnamon, especially on under tail-coverts, where coarsely barred; the cheeks and neck all around dusky, streaked with whitish and cinnamon-ochraceous. Maturing birds show increasing white, i. e., are more sparingly dusky-streaked or barred below, and in the last stage are merely tinged on throat, nape, and sides of breast with blended dusky. Owing to the habitual cross-breeding of the light and dark phases, the resultant varieties are interminable and their plumage changes hard to follow. Some examples, presumably juvenal of the dark phase, are even heavily washed and skirted with ochraceous-tawny or clay-color—containing a hint of erythrism. In a considerable series of these birds there will be no two specimens alike; but the type showing some degree of nebulated under-plumage will prevail. If all birds were as variable as these, the task of the plumographer would be hopeless. Length 381-533.4 (15.00-21.00); av. 431.8 (17.00); wing 330.2 (13.00); tail 190.5 (7.50); bill 30.5 (1.20); tarsus 45.7 (1.80).

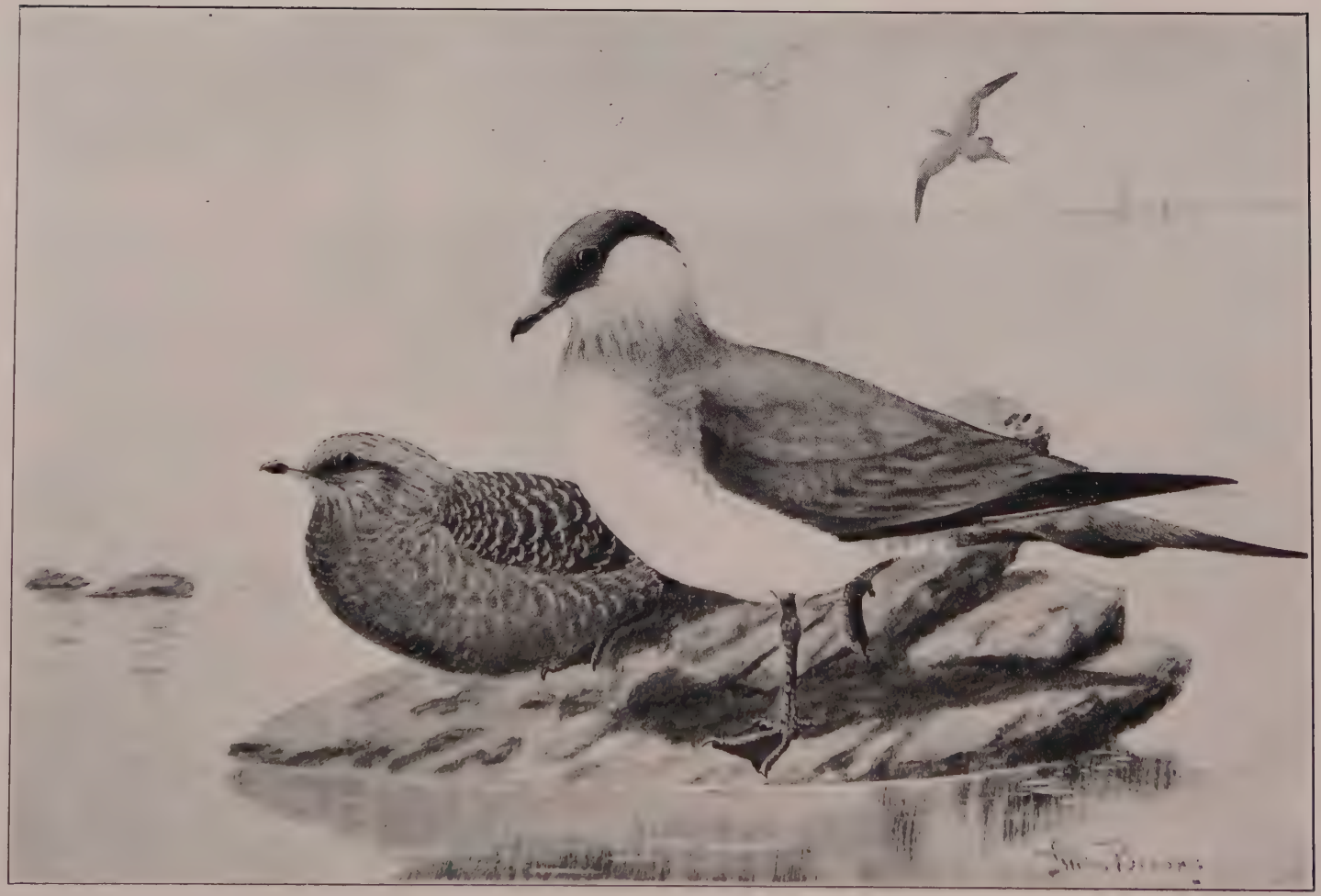
Recognition Marks.—Crow size, but appearing larger; marks much as in preceding species, but *central pair of tail-feathers sharply pointed*, produced about three inches beyond others (not nearly so long as the Long-tailed Jaeger (*S. longicaudus*).

Nesting.—Does not breed in California. *Nest:* A depression in moss. *Eggs:* 2; light brownish olive to buffy brown, spotted rather sparingly with dark sepia, dark bister, or black, and dull violet-gray. Av. size 58.4 x 41.9 (2.30 x 1.65). *Season:* June.

General Range.—Breeds in high northern latitudes from at least Lat. 81° 40′ south to the Aleutians, central Mackenzie (Great Slave Lake), and Scotland. Winters from the Aleutian Islands, New England, and the coasts of Europe south to Chile, Brazil, Cape of Good Hope, and Australian seas. Many interior records, especially upon the Great Lakes.

Occurrence in California.—Fairly common migrant, coastwise. Found sparingly in winter south of Pt. Conception.

Authorities.—**Cooper** (*Stercorarius parasiticus*), Proc. Calif. Acad. Sci., vol. v., 1874, p. 415 (San Francisco Co.); *Henshaw*, Auk, vol. ii., 1885, p. 232 (Santa Barbara, etc.); *Evermann*, Auk, vol. iii., 1886, p. 88 (San Buenaventura); *Grinnell*, Pac. Coast Avifauna, no. 1, 1900, p. 8 (Cape Blossom, Alaska; desc. nest and eggs, etc.).



PARASITIC JAEGER

HARD upon the migrating hosts of Terns come these cruel tyrants of the sea, the Jaegers. Despicable in that they have turned traitor to their own kind, and in that they harass the least as well as the greatest of that kind, they nevertheless provoke admiration and astonishment by their gracefulness, their skillfulness, and their saucy bravado. Every line in the Jaeger's make-up is cut for speed. Once its gleaming, covetous eye is cast upon a victim, it is no question of escape, but only a matter of detail in the terms of capitulation.

A tern catches a herring, and while it is disposing of its catch, the free-booter hurries up and dives at the tern suggestively. The Jaeger makes no attempt to snatch the fish, but it dives under its victim, jostling it each time, and forcing it up into the air. The tern twists this way and that, screaming protestingly, but anon drops the fish, which the Jaeger snatches deftly in mid-air. Not content with this ransom, which is instantly bolted, the bandit demands to know whether the victim has any more fish secreted about his person, and harries the hapless wight until the contents of the crop are disgorged, or, if already empty, until the victim clearly establishes his poverty.

Jaegers frequently hunt in pairs, and when so fortified are able to successfully handle much larger subjects. A Glaucous-winged Gull could nearly eat a Jaeger alive, if he could only get at him. But the parasites are too adroit, too elusive, and too desperately persistent. The gull hates to do it, but also he hates to be buffeted and hustled away from the fishing-grounds: "Here, take it, you scum, and be off with you!"

Jaegers, both of this and of the preceding species, pass along our coasts in considerable numbers in late April and early May and again in September. They do not, of course, move in flocks like terns, for no territory could support such wholesale brigandage; but at the height of the season one may see a score of birds, in steaming from San Pedro to Avalon, or from Santa Barbara to Santa Cruz Island. The season of 1914 was a late one in California. At Santa Barbara both sorts of Jaegers and four kinds of terns were found on the 14th of November. Doubtless many of these lesser pirates winter hereabouts, for they do not go much further south. The Jaegers are not entirely dependent upon forced charity, for they devour offal on shore, or glean tidbits from the surface of the water, quite after the fashion of other gulls. Upon discovering a morsel below, the Jaeger checks its flight suddenly, with a display of the characteristic tail-feathers which is quite gratifying to the watchful student; and it settles daintily upon the water to investigate at leisure or to snatch and rise with perfect grace. In its northern home, the lowlands and coastal marshes of Alaska, it is said to hunt a great deal inshore, where it catches shrew-mice, lemmings, and even small

birds. It is also very fond of eggs, and destroys great numbers of them in the course of a season, not only those of kittiwakes and murres, but of ducks and snipe as well. On cloudy days or in the Arctic twilight preceding the time of departure for the South, these birds are said to utter doleful wailing cries, interspersed with harsh shrieks; and these are among the most characteristic sounds to be heard in the teeming, tragic North.

No. 269

Long-tailed Jaeger

A. O. U. No. 38. **Stercorarius longicaudus** Vieillot.

Synonyms.—Arctic Jaeger. Buffon's Jaeger. Teaser. Boatswain. Marlinspike. Gull-chaser.

Description.—*Adult:* Top of head, including eyes and lores, black, the fibrillæ of occipital feathers parted; remainder of head, neck all around and breast white, tinged on sides of head and on neck all around with straw-yellow; remaining plumage slaty, shading on cervix, sides, and belly, blackening on exposed wing-quills and tail, definitely black on exposed tips of greater wing-coverts; the shafts of the quills white or straw-yellow, as in other species; primaries and tail with some basal white on webs; central pair of tail-feathers normally greatly produced, 6 to 10 inches beyond lateral feathers. Bill dusky, blackening on tip; tarsi leaden blue; tibiæ and feet black. There is also a melanotic phase wherein the entire plumage becomes slaty or sooty, as in other species of Jaegers, but this is very rare, almost negligible. *Young birds* differ materially from the adult, being smaller, darker, and more varied in plumage, and with the central pair of tail-feathers not at all, or only slightly, projecting. A typical example, male of the 2nd (?) year, has head and neck all around streaked dusky and dull buffy; cervix and remaining under-plumage throughout mottled and barred with same colors, clearing to white on breast centrally, buffy strengthening on under tail-coverts, where black-white-and-buff-banded, buffy wanting in black-and-white-barring of under wing-coverts and axillars; remaining upperparts sooty black, heavily margined with fulvous on back and wings; black-white-and-cinnamon-buffy-barred on upper tail-coverts; blackening on wing-quills and rectrices, as before. Length of adult 508-609.6 (20.00-24.00), of which the tail 254-406.4 (10.00-16.00), the lateral tail feathers about 158.75 (6.25); wing 304.8-330.2 (12.00-13.00); bill 27.4 (1.08); tarsus 44 (1.73).

Recognition Marks.—Small crow size; smaller in body than the Parasitic Jaeger; the greatly lengthened and tapering central pair of tail-feathers distinctive.

Nesting.—Does not breed in California. *Nest:* A depression in moss or heather. *Eggs:* 2; dark olive-buff, marked with light brownish olive to black and dull violet-gray. Av. size 52.8 x 36.8 (2.08 x 1.45). *Season:* June.

General Range.—Northern portions of Northern Hemisphere. Breeds in the highest latitudes south to the Arctic shore of the American Continent and Siberia. Sparingly and irregularly south in winter to coasts of California, Florida (one record), Italy, and Japan.

Occurrence in California.—A rare migrant coastwise, so far recorded only in autumn.

Authorities.—Loomis (*Stercorarius longicaudus*), Proc. Calif. Acad. Sci., ser. 2, v., 1895, p. 213 (Monterey); *Bishop*, Condor, vol. vii., 1905, p. 141 (Pacific Beach, San Diego Co.); *Grinnell*, Pac. Coast Avifauna, no. 1, 1900, p. 8 (Kotzebue Sound, Alaska; desc. nest, eggs, habits, food, etc.); *ibid.*, Pac. Coast Avifauna, no. 11, 1915, p. 20 (Monterey).

THIS, the smallest, as well as the most active and graceful of the Jaegers, appears to be more of a stay-at-home than any of its fellows. At least it does not come so far south in winter, having been only twice recorded from California; once by Loomis at Monterey, and once by Marsden at Pacific Beach, in San Diego County.

The Long-tailed Jaegers are the first of their kind to revisit the northern tundras when spring has forced winter's lock. On such occasions they dash about like excited schoolboys, chasing their fellows in mock pursuit, or relieving their feelings by shrill cries. The selection of a mate is a noisy as well as momentous affair, but once accomplished, the pair retires to some lonesome spot of the tundra, where two elongated dark eggs of an olive-green hue, marked with blackish, are laid in a cup-shaped depression lined with moss. The parent birds are skilled in ruse rather than in defense, and in progressive paroxysms rehearse the agonies of mortal wounds so as to deceive the very elect—the while the nest is being left behind.

Although as skilled as any of their kind in exacting fishing toll of gull or tern, these furtive mischiefs have bad consciences, insomuch that they make a poor fist of robbing birds' nests. Curlews, terns, tiny sandpipers even, exalted by the righteousness of their cause, can drive these cowards out of bounds. When courage fails, therefore, they will descend to lemmings, insects, offal,—berries even. A full crop restores confidence, and our hero of many inconsistencies settles on the highest hummock which the neighborhood affords, cocks his head back, thrusts out his gleaming white breast, and poses as an amiable landmark, till digestion and cupidity urge a repetition of the endless round.

No. 270

Pacific Kittiwake

A. O. U. No. 40. **Rissa tridactyla pollicaris** Ridgway.

Synonym.—Kittiwake Gull.

Description.—*Adult in summer:* General plumage pure white, the mantle deep pearl-gray; five or sometimes six outer primaries with terminal portion black, the breadth of black area on first primary about three inches, decreasing to .85 in the

fifth; the first black on the outer web also; the fourth and fifth narrowly tipped with white; the black on the sixth appearing, if at all, as two rounded spots. Bill light yellow clouded with olivaceous; legs and feet blackish; the hind toe distinctly developed but minute; iris reddish brown; eye-ring red. *Adult in winter:* Similar, but sides of head and hind-neck overlaid with dark gray or plumbeous, and with plumbeous-slate around eye, most sharply in front. *Immature:* Terminal portion of tail, and exposed portion of primaries exhibited by folded wing black, the four outer primaries extensively white on inner webs, the color encroaching upon outer web and upon tip of the 5th, black vanishing with subterminal bar on 6th; a long black patch formed by bastard wing, lesser and median wing-coverts, and portion of secondaries; a broad cervical collar of black, and dabs of the same behind auriculars, sometimes continuous across fore-nape; some black smearing about eye. Bill black. Length of adult: 406.4-444.5 (16.00-17.50); wing 304.8-330.2 (12.00-13.00); tail 121.9 (4.80); bill 34.3 (1.35); tarsus 34.3 (1.35).

Recognition Marks.—Crow size; blackish feet of adult; solid black of extreme wing tip; black less extensive than in *Larus delawarensis.*

Nesting.—Does not breed in California. *Nest:* On ledges of rocky cliffs; of grass, moss, and seaweed. *Eggs:* 3; olive-buff (of varying tone, but averaging lighter than "normal gull type"), with spots and blotches of chocolate-brown and violet-gray. Av. size 57.4 x 40.9 (2.26 x 1.61). *Season:* June.

Range of *Rissa tridactyla.*—Breeds along the coasts of Arctic and sub-Arctic regions south to the Aleutians and the Gulf of St. Lawrence and southern France. Winters from the southern portions of its breeding range south irregularly to the Canaries, Bermuda, and Lower California.

Range of *R. t. pollicaris.*—Breeding on islands and shores of Bering Sea and adjacent portions of the Arctic and northern Pacific Oceans. Retires in winter to lower portions of breeding range or sparingly and irregularly to Japan and Lower California.

Occurrence in California.—Not common and very irregular winter visitant along coast and in harbors. Sporadically abundant. Casual inland.

Authorities.—Cooper (*Rissa kotzebuei*), Proc. Calif. Acad. Sci., vol. iv., 1868, p. 10 (San Francisco Bay); *Loomis*, Proc. Calif. Acad. Sci., ser. 2, vi., 1896, p. 21 (Monterey); *Anthony*, Auk, vol. xv., 1898, p. 267 (San Diego).

THIS HARDY gull is one of the most abundant and best distributed of birds in Alaskan waters, but its winter recession is very irregular, and is doubtless determined altogether by special weather or food conditions in the North. The species has been described as common during certain winters as far south as Monterey, and is held to be a regular winter visitant in small numbers south to the Coronado Islands. Nevertheless, its occurrence south of Monterey is always worthy of remark, and throughout certain seasons it is all but wanting. I have seen it only once at Santa Barbara.

Of their occurrence in Alaska Mr. E. W. Nelson says: "They pursue their prey in the same graceful manner as the terns, by hovering over the water and plunging down head-foremost. It is an extremely

interesting sight to watch a large flock passing over calm water in this manner. They are limited strictly to tide-water and rarely ascend even the Yukon delta over a few miles.

"Throughout its range this species has considerable curiosity and comes circling about any strange intruder to its haunts. In the bay at Saint Michaels they were frequently seen following a school of white whales, evidently to secure such fragments of fish or other food as the whales dropped in the water. It is curious to note how well the birds timed the whales and anticipated their appearance as the latter came up to blow."

Dr. Joseph Grinnell found the Pacific Kittiwake breeding extensively on Chamisso Island in Kotzebue Sound, and he says[1]: "On July 9th (1899) the eggs were well advanced in incubation. I saw no nests containing more than two eggs, and many nests held but one. The nests consisted of a wet, muddy mass of decaying grasses, adhering to narrow ledges and projecting points of rocks, frequently so limited in extent as to make it appear as though the nest were stuck to the face of the cliff like a Barn Swallow's. The neatly-moulded saucer-shaped nest-cavity was lined with grasses. As I was let slowly down the face of the cliff at the end of a rope, the sitting Kittiwakes beneath me would allow me to approach very closely before launching from the nests. They would leave with a few peculiar shrill cries, and hover about me or soar back and forth along the cliff, while the ever circling files and swarms of murres and puffins out over the water, was enough to bewilder one. I found the Kittiwakes' nests built in colonies, that is, there would be as many as a dozen built close together, lined along a narrow ledge."

No. 271

Glaucous Gull

A. O. U. No. 42. **Larus hyperboreus** Gunnerus.

Synonyms.—BURGOMASTER. POINT BARROW GULL.

Description.—*Adult in summer:* Mantle pale pearl-gray; remaining plumage pure white; primaries entirely white or pale gray basally fading into white on tips, their shafts straw-yellow. Bill chrome yellow with vermilion spot at angle; feet and legs livid flesh-color; iris light hazel. *In winter:* Iris golden yellow; bill and feet paler than in summer; head and hind-neck lightly touched with pale brownish gray. *Immature:* Sordid white, shaded below (most uniformly on belly) with brownish, and slightly mottled above with pale reddish brown; exposed primaries chiefly brownish dusky, narrowly tipped with white; tail brownish dusky terminally (narrowly tipped

[1] Birds of the Kotzebue Sound Region. Pac. Coast Avifauna, No. 1, p. 9.

with white), finely mottled brownish and white, changing to pure white basally. Bill flesh-colored, tipped with black—always the whitest of local young gulls. Length of adult: 533.4-812.8 (26.00-32.00); wing 431.8-469.9 (17.00-18.50); tail 203.2 (8.00); bill 50.8-76.2 (2.00-3.00); depth at nostril 20.3 (.80); tarsus 63.5-82.5 (2.50-3.25).

Recognition Marks.—Largest of local gulls; plumage almost white above; primaries and tips broadly white, distinctive.

Nesting.—Does not breed in California. *Nest:* As in *glaucescens*. *Eggs:* See description of normal gull type under Western Gull. Av. size 76.2 x 53.3 (3.00 x 2.10). *Season:* June–July; one brood.

General Range.—The Arctic regions. In America breeding from northern Greenland through the Arctic Archipelago and along the mainland coasts to the Aleutian Islands and the mouth of the Kuskokwim River in Alaska. Winters along the coasts of the Arctic and sub-Arctic zones and from the Aleutians and Greenland south to Monterey, the Great Lakes, and Long Island; casually further.

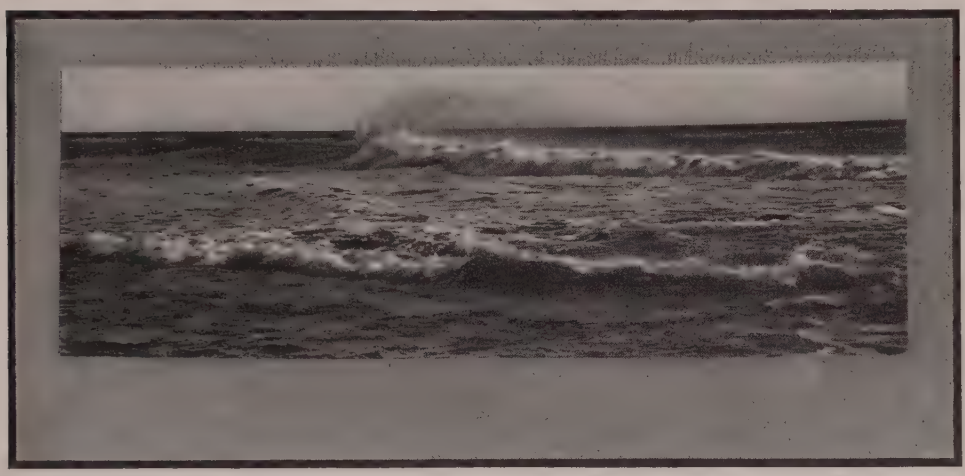
Occurrence in California.—Not common winter visitant along the coast south to Monterey and less commonly to Santa Barbara.

Authorities.—**Cooper** (*Larus hutchinsii*), Proc. Calif. Acad. Sci., vol. iv., 1868, p. 9 (Farallons and San Francisco Bay); *Loomis*, Proc. Calif. Acad. Sci., ser. 2, vi., 1896, p. 22; *ibid.*, ser. 3, zool. ii., 1900, p. 357 (Monterey); *Dwight*, Auk, vol. xxiii., 1906, p. 30 (full desc.; crit.); *Cooke*, U. S. Dept. Agric., Bull. no. 292, 1915, p. 22 (distr. and migr.) which also consult for all succeeding species of Gulls and Terns; *Bent*, U. S. Nat. Mus., Bull. no. 113, 1921, p. 52 (life hist.; desc. and photos of nest, eggs, etc.) and so for all species of Lariformes.

NEXT AFTER the Ivory Gull (*Pagophila alba*), whose attainment of white plumage is absolute, the sturdy Glaucous is most nearly assimilated to the color of the ice, which forms the familiar setting of its summer home in northern Alaska and its winter home in the Aleutians. With *leucopterus*, a smaller species of exactly similar pattern, not found in the North Pacific, it shares, or divides, dominion of all southern and middle Arctic coasts. Its southern breeding range overlaps that of *L. glaucescens* and perhaps of *L. nelsoni* in the Pacific, and that of *L. kumlieni* in the Atlantic tributaries.

Our chief interest in *hyperboreus* attaches to the fact that a few, usually stray individuals, winter south to Monterey or even Santa Barbara. We count upon seeing one or two of them every winter at the Channel City; and twice, in midsummer, I have seen stranded youngsters, orphans who had forgotten to migrate, sitting on the sands of "Shore Acres" inside the city limits. With Heermann Gulls ranged alongside of them and Westerns galore for companions, one could not help remarking and speculating upon that perfect gradation of color in gulls which obtains along our northeast Pacific coast. See! there is *heermanni*, the slaty-black fellow who nests along the western coast of Mexico as far north as Ildefonso; then *occidentalis*, he of the plumbeous mantle and black wing-tips, breeding from Lower California to the middle coast of Washington; then *glaucescens*, with pale gray mantle and gray wing-tips, breeding north to

the Aleutians and Kotzebue Sound; then *hyperboreus*, with palest gray mantle and white primaries, breeding north to Point Barrow and Banks Land; and, lastly, *Pagophila alba*, the all white bird, who would nest on the Pole itself, if that would stand still long enough. A beautiful gradation from Ethiopian brunette to Eskimo blond! But what is the meaning of it all? One can see why an "ice gull" should be white, but why should *heermanni* and *fuliginosus* and *modestus* of the tropics be sooty? and why this accurate gradation?



Taken near Santa Barbara *Photo by the Author*

WHERE TRITON BLOWS HIS WREATHED HORN

No. 272

Iceland Gull

A. O. U. No. 43. **Larus leucopterus** Faber.

Description.—"Similar in coloration to *L. hyperboreus*, but much smaller, with relatively smaller bill and feet and longer wing"—Ridgway. Length of adult about 609.6 (24.00); wing 101.6 (4.00); tail 41.9 (1.65); bill 11.2 (.44); tarsus 13.7 (.54).

Recognition Marks.—Gull size; nearly white coloration of adult, very light coloration of immature; much smaller than Glaucous Gull.

Nesting.—Does not breed in California. *Nest* and *Eggs:* Much as in next species. Av. size 68 x 48 (17.3 x 12.2) (Bent). *Season:* June.

General Range.—Coasts of the North Atlantic and adjacent portions of the Arctic Ocean. Breeds in Arctic regions from Victoria Land, Boothia Peninsula, and western Greenland, east (probably) to Nova Zembla; winters south along the Labrador

coast to the Bay of Fundy, more rarely to Long Island, casually to Sault Ste. Marie, Lake Erie (Lorain), Cape Hatteras, etc. In Europe winters south to the northern British Isles and the Baltic, rarely to northern France.

Occurrence in California.—One record of a specimen picked up dead at Buena Vista Lake, Dec. 30, 1921, by Loye Miller and A. van Rossem.

Authorities.—**Dickey and van Rossem** (*Larus leucopterus*). Auk, vol. xxxix., 1922, p. 411 (Buena Vista Lake, Dec. 30, 1921, 1 spec.); *C. W. Townsend*, in Bent, U. S. Nat. Mus., Bull. no. 113, 1921, p. 62 (life history).

THE OCCURRENCE of this North Atlantic species in California must be reckoned purely fortuitous — or, if we admit a designing Providence, it was brought about in order that the hearts of two bird-men might be made glad with a new record (and, incidentally, the pages of this book burdened with an account of a bird which no reader, on any theory of probabilities, will ever see again in California). Also, fifteen species and subspecies of gulls for California is "no that bad". The quest of records has all the rewards of life in the open and all the fascination of a game of chance; while the interpretation of records keeps a hundred ornithologists clucking contentedly in the closet.

No. 273

Glaucous-winged Gull

A. O. U. No. 44. **Larus glaucescens** Naumann.

Synonyms.—Common Gull. Harbor Gull. Blue Gull. Burgomaster (name properly restricted to *L. glaucus*).

Description.—*Adult in summer:* Mantle pearl-gray (of about the same shade as that of *L. argentatus*); wing-tip chiefly gray, of about the color of back—in particular: 1st primary nearly uniform pearl-gray with a large subterminal spot of white on both webs, separated by gray band from white tip; 2nd, 3rd, and 4th primaries ashy gray terminally, changing through white (narrowly) to pearl-gray of basal portion, tipped with white; 5th and 6th as in preceding, but ashy gray subterminal portion narrower, and contiguous white broader; remaining primaries and secondaries color of back with broad white tips. Remaining plumage pure white. Bill yellow, a rounded spot of bright vermilion at angle of lower mandible, this usually shadowed above by a dusky spot (this dusky spot is the last persistent trace of adolescence; it is sometimes larger than the red spot in specimens otherwise perfectly adult, and only the oldest birds are entirely without it); feet dull flesh-pink, or pale purplish rosy; irides brown, of varying shade. *Adult in winter:* Head, neck, and breast, but not throat, obscurely (or, rarely, heavily) clouded with light grayish dusky of a vinaceous cast. *Downy young:* Bill and feet black; down chiefly grayish white, upperparts spotted and striped in intricate but characteristic pattern with grayish black. *Young-of-the-year:* Bill black; plumage grayish dusky, with a vinaceous cast, nearly uniform below, but above

varied by coarse spotting of dull white and (or) pale buffy. *Second year young:* As in preceding but bill flesh-colored basally; plumage lightening and clearing somewhat irregularly, but wings and tail darker by contrast; the tips of the primaries dusky gray, sometimes appearing almost blackish. *Approaching maturity:* Upperparts ashy- to pearl-gray, but some clouding of dusky on wing-coverts; terminal portions of primaries of darker gray than in adult and not distinctly white spotted and tipped; underparts more or less marked with dusky; bill blackish, clearing (yellow) except in subterminal band, where black persistent in diminishing area. Length of adult very variable: 584.2-711.2 (23.00-28.00); average about 673.1 (26.50); wing 406.4-442 (16.00-17.40); bill 53.3-66 (2.10-2.60), depth at angle 17.8-22.9 (.70-.90); tarsus 67.3 (2.65).

Recognition Marks.—Size of *occidentalis* or larger, and after it, the commonest large gull in winter; absence of black in wing distinctive for all but *glaucus*, from which it is distinguished by darker mantle and definite pattern of gray in wing-tip; 2nd primary narrowly tipped with white, as compared with *L. nelsoni* (H.). *Young birds* are of a lighter and more blended coloration than those of *L. occidentalis*, and their primaries and tail-feathers are much lighter. Those of *L. occidentalis* are invariably blackish.

Nesting.—Does not breed in California. *Nest:* As in next species. *Eggs:* 3; see description of "Normal Gull Type" under next species. Coloration averages lighter as to ground, and pigments darker (redder or more inclined to bister) or greener. Av. of 40 eggs in M. C. O. coll.: 70.4 x 49 (2.77 x 1.93); index 70; range of measurements 64.3-83.6 by 45-53.3 (2.53-3.29 by 1.77-2.10). *Season:* June; one brood.

General Range.—Coasts and islands of the North Pacific Ocean, breeding from the coast of Washington (Destruction Island) north to Norton Bay, Alaska, St. Lawrence Island, and the adjacent mainland of Siberia, and west along the Aleutians to the Commander Islands. Retires in winter to open harbors, and migrates as far south as Guadalupe Island, Lower California, and on the Asiatic side to Japan.

Distribution in California.—Common winter resident south along the coast to San Diego. Most abundant in San Francisco and Monterey Bays.

Authorities.—Lawrence (*Larus glaucescens*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 842 (Bodega); *Dwight*, Auk, vol. xxiii., 1906, p. 35 (desc.; crit.); *Jones*, Wilson Bull., no. 65, 1908, p. 197 (Carroll Id., Wash., breeding; desc. nest and eggs).

ONLY the sea-faring man may boast of acquaintance with the mighty Albatrosses; and only the lucky adventurer may follow the fortunes of the sea-fowl amid their sea-girt rocky homes; but there is no man so humble that he may not know something of the gull, and from this knowledge guess something of the joys of ocean life. To the city man, especially, the gull is the one visible point of contact with the Great Beyond of Nature. Pray, consider what a benevolent miracle it is that these most improvident of God's creatures, the birds, are impelled to loiter for a season about the doorstep of a great city. These thronging docks, upborne by close-set piles, and housing the wares of Occident and Ind, what are they but the very ramparts of order, the symbolical breastworks of organized human industry now millenniums old! And yet, upon a wooden pedestal hard by sits a gull, serene, sedate, unhurried, a son of the wilderness gazing

Taken in Seattle *Photo by the Author*

PORTRAIT OF GLAUCOUS-WINGED GULL

upon you with level eye, and rebuking by his very blue-gray calm the pomp and madness of men. This throbbing ferry-boat grimly intent upon the business of getting its human freight from shore to shore, is still our best serviceable solution of the transportation problem. The gull furnishes his own conveyance, simple, subtile, compact, yet elegant beyond the powers of art, and adequate beyond the dream of engineers. Effortless, noiseless, tireless, he views from a thousand easy angles your muddled helplessness, and mocks by a thousand airy caprices your tedious destiny as freight.

You have escaped for the nonce from the counting-room, fetid with usurious plots; his business has always been conducted in the open, his many farings *viséd* by the sun, and his lodging-places purified by the gentle rains. You are concerned about your clothing, and you dress laboriously for "the occasion"; his wardrobe is always on his back, well-fitting, seasonable, and "correct." You, poor human, are worried about the in-

creased cost of living; His Opulence, the Gull, fares fat on what you squander, and yawns contentedly over a full crop. As for revels, what more giddy whirl than the aerial dance of the white-winged watchers, as they welcome an incoming steamer, or divide the cook's largess on the churning waters! What! You tired-eyed galley slave of Fortune, you spent son of Ambition and dull Care! Consider the sea-gulls how they fare, and forget yourself — for an hour.

The gulls are mother Nature's pledge that she has not forgotten us. The sparrows gibbering in the street yonder are scant comfort to the human heart; — outcasts they are, mere collocations of soil and smut, blatant, futile. But here, where sea meets shore, Nature deals kindly with us and sends daintily liveried messengers to prophesy of a world beyond. White for purity, pale blue for tremulous hope and reminiscence of heaven (when skies are dull); these, with a little black for tagging — recognition marks — compose the dainty costume of a full-grown gull. The murky flood below gnaws sulkily at the underpinning of the wharfage, or recoils in turbid fright from dark secrets of vegetable outlawry; but the sea-birds, hovering over, spotless, graceful, debonair, make us forget our partnership of guilty knowledge, and pledge.

Taken in Washington SAILORS *Photo by the Author*

Taken in Seattle *Photo by the Author*

YOUNG BURGOMASTERS

us to visions of the limpid ocean, all-powerful and all-purifying.

To and fro, forward and back, in and out, up, down, and around, moves the restless multitude when the hungry mood is on,— a twirling kaleidoscope of action. And, while the gulls are no songsters, not the least of their charm lies in the manifold cries, in the trumpet calls and croaks, in the barks and screams, with which the birds mark the progress of their quest. And when a treasure of floating biscuits is discovered, how the screams rise to a grand medley of stridor, fierce, exultant, like the triumph of Tritons over smitten reefs!

Truth to tell, we owe the continued presence of our thousands of seagulls through the winter chiefly to the activities of our fish markets and our packing houses, and to the fact that the city's garbage is dumped daily at the advancing edge of the tide lands. At the dumping grounds the arrival of each loaded scow, in charge of Antonio or Pietro, is greeted with a double Chautauqua salute of fluttering wings, and hoarse huzzas besides. Pandemonium reigns until the tide has divided the spoil, and these children of the second table have all been fed.

Toward noontide, when the garbage gatherers have given over their task, the birds retire according to their kind, to foregather with their fellows for the midday siesta, which is an essential part of every well-regulated bird-day. The Mews assemble on the water in some open space and ride at anchor, or else rehearse in gabbling, duck-like tones the memories of Alaska. The Glaucous-wings, with their cousins, the Westerns and the Herrings, line the railings in solemn rows, or else betake themselves to some retreat of inaccessible piling. Here, each on a pillar like St. Simeon Stylites, they ruminate and slumber till the pangs of returning hunger impel them once again to action. The California Gulls prefer to

muster on the made lands or open tide flats. Here their white battalions of rest afford a pleasing contrast to the squalor of commerce behind them.

One marvels at the boldness these harbor gulls at times display, especially when a touch of winter has made us all akin. The man who minds his own business may sometimes pass within six feet of sitting birds — pass, not pause. For let him stop but that fraction of an instant necessary to adjust a focus, and the wary birds are off, their minds poisoned by dark suspicion. When the great hunger is on, it is possible to bait the gulls to the camera in many ways; but when that aching void is filled, all direct efforts at acquaintance are futile. Thinking to effect an *ensemble* piece, I once dumped a keg of choice "seconds" from the rails of a packing house. The sun was bright, the camera set, and the focus chosen. The gulls burdened every pile and timber in the vicinity; and yet as that wanton meat floated on the tide, the pampered birds only leered foolishly at it, and resumed their meditations.

But it is not alone as pensioners of the city's untidy soup kitchen that we may know the gulls. Although undoubted children of the sea, the gulls have certain Limicoline affinities, which lead them to seek the vicinage of ponds and fresh-water shallows. That is to say, the ur-ancient ancestor of the gulls was a swamp-loving bird, and the gull is but answering the primeval call when it forsakes the sea to idle about in flooded meadows or to haunt some alluvial bar. On a lush day in early spring I have seen hundreds of these adventurers pattering about the dank truck farms of the upper bay, now stopping to gaze at their images in the shallow mirrors of a recent rain, now wading into the ooze and treading it in an apparent ecstasy of delight over its squashiness.

Taken in Seattle *Photo by the Author*

IDLERS

Taken on S. S. Princess Beatrice *Photo by the Author*

AN EAGLE POSE

At another time the whim of the aeronaut may seize whole companies of gulls, and they will sail about over the city, gyrating by the hour in utter aimlessness, save such as actuates park strollers on a summer afternoon.

Taken off the Coast of Washington *Photo by the Author*

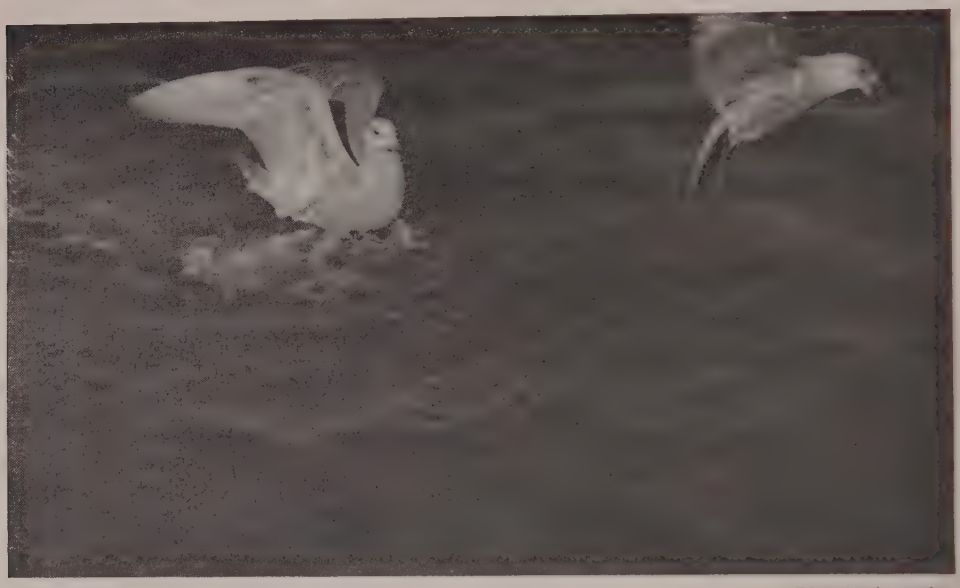
PEECHWAH, ONE OF THE OLYMPIADES

While it is true that the Glaucous-winged Gull does not breed within the limits of California nor anywhere south of Latitude 47°, its breeding habits so closely parallel those of our more familiar Western Gull that I venture to reproduce *verbatim et literatim* the account which appeared in "The Birds of Washington": Nothing in the domain of ornithology can exceed the romantic interest of a sea-bird island. When to the stubborn challenge of the rock itself and the screaming of the apprehensive fowl, is added the majestic sub-dominant of the roaring sea, you have a thing to stir the heart of vikings. It was the wine of adventure, no doubt, as well as the underlying necessity for food which prompted an Ozette Indian to scale "Peechwah" within recent memory; and which tempted the young Quileutes of a bygone generation to sack Cake Island[1], whose sides appear "more than perpendicular."

Once at home, the gulls nest almost anywhere, save that they have not yet been driven into trees, as is the case along the Maine coast. Slop-

[1]Islands of the Olympiades, off the coast of Washington, now included in the Quillayute Needles Bird Reservation.

ing, grass-covered hillsides are favorite places, and the seclusion of the underbrush is not despised; but the sculptured chambers of sandstone, hollowed by the high-flung chisels of the winter's storms, constitute the ideal setting for a gull's nest. The eggs, barring mishap always three in number, are in color and markings skillful epitomes of their average surroundings. The chicks, likewise, are marked for obliteration. They have, moreover, a faculty of absolute movelessness on occasion, which those of us who are parents ardently covet for our six-year olds.



Taken in Washington *Photo by the Author*

FIRST COME FIRST SERVED

Gull discipline can be very stern while danger lasts; but once let the parents suppose themselves unobserved, and they will lavish every attention upon their offspring. The fish-laden bird, returning from the chase, first disgorges his catch of smelt or the like upon a convenient spot; then in a wheedling voice summons the chicks from hiding. They come skipping up like kids, and fall to, while the doting parents dance attendance and utter incessant blandishments. And after the youngsters have stuffed themselves to repletion, the mother still urges, "Can't Mama's darlings eat just one more fishy?" until the beholder, recalling the ways of his own kind, is almost nauseated.

Gulls are credited with "screams" or "cries", but it is not, perhaps, generally understood that the notes of different species are distinctive; or that each species possesses a considerable vocabulary with which to voice

the major emotions. This fact was forced home upon the writer only when he lay in camp, a voluntary Crusoe for a week, on a bird rock of lower Puget Sound. Here, since there was nothing to be heard save the murmuring of the sea, the hissing of Pigeon Guillemots, and the notes of the Glaucous-winged Gulls, it is not surprising that the last-named began to fall into some sort of order, with dawning significances as the week drew to its close. At the risk of wearying the reader, since the experience is possibly unique, I venture to enumerate the leading sounds, or phrases, of this little-known gull tongue:

The *beak-quaking notes*—harsh, unmusical, and of moderate pitch, used to express distrust and continued disapproval. During delivery the mandibles are brought together three or four times in moderate succession. This is the ordinary scolding, or distress cry, of characteristic and uniform pitch, save that it is raised to a higher key when the speaker becomes vehement. The phrase varies from three to five notes, and is uttered in the following cadences: *kak′-ako′; ka′ ka, ka′ ka; ka′ ka kaka′; kakak′, ka′ kakak′; kak′-akak′-a-ka.*

Taken in Seattle *Photo by the Author*

FACING THE TIDE

Kawk—a note of inquiry or mere communication; has many modifications and varies from a short trumpet note to the succeeding.

Klook—a sepulchral note of unfailing interest but uncertain meaning.

The *trumpet notes*—long or short, single or in prolonged succession, high-pitched, musical, and far-sounding. During delivery the head is thrust forward, the neck arched, and the throat and mandibles opened to their fullest capacity. These are pleasure notes and are used especially on social occasions when many birds are about — *kleer, kleer, kleer, kleer.*

A(n)k, a(n)k, a(n)k, a(n)k, a(n)k, a(n)k—minor trumpet notes of regular length and succession, used in expostulation or social excitement, frequent and varied.

Klook, klook, klook—in quality a combination of *kawk* and the trumpet tones, uttered deliberately and without much show of energy. Used chiefly in domestic conversation of uncertain import.

Oreé-eh, oreé-eh, oreé-eh, añ añ añ—an expression of greeting, as when uttered by a sitting bird welcoming one about to alight. The notes of the first series are trumpet tones in which the second syllable of each member is raised to a higher pitch, while the voice is dropped again on the third. The second series is lower and more trivial but still enthusiastic, as though congratulatory to the guest arrived.

Ko—shouted once, or thrice repeated, in quelling a clamor. "Hist! Hist! You're making too much noise; he's watching us."

Arahh—a slow and mournful trumpeting, usually uttered a-wing to express anxiety or grief, as at the loss of a chick.

Oo anh, oo anh—repeated indefinitely. Notes of coaxing and endearment usually addressed to children, but occasionally to wedded mates. The cooing of doves does not express so much adulation, or idolatrous devotion, as the gull throws into these most domestic tones.

No. 274

Western Gull

A. O. U. No. 49. **Larus occidentalis occidentalis** Audubon.

Synonym.—Western Herring Gull.

Description.—*Adult in breeding plumage:* Mantle slaty gray or plumbeous-slate, sharply contrasting with terminal white of secondaries and tertials; the first three primaries chiefly black on exposed portion, the succeeding three black subterminally in decreasing area; the first six primaries broadly tipped with white; the outer primary (and occasionally in lesser degree the second primary) white for about an inch and a half subterminally, crossed distally by irregular black area; remaining plumage

Taken in Humboldt County *Photo by the Author*

A DECORATED CEILING

pure white. Bill stout and deep with very convex culmen and strongly marked angle, the mandible touched with vermilion on side near tip; irides brown; feet pale purplish rosy or flesh-colored. *Adult in worn plumage:* Mantle duller, sometimes glossed with brownish; subterminal white spots of primaries disappearing with wear, and the black less intense, more brownish, in extreme cases rusty-weathered. *Adult in winter:* Occasionally, but not always, head and neck all around streaked or finely nebulated with plumbeous dusky. This trait, characteristic of certain other species of gulls in fullest maturity, e. g., *L. delawarensis*, appears to be thrown off in fully adult *occidentalis*. It may be seen in perfection, however, in "near adult" (3rd autumnal?) specimens. *Downy young*: Much as in *L. glaucescens*, but ground-color lighter, more yellowish, and black of markings inclined to brownish. *First year birds:* General color brownish slate, highly varied on back and wings by edgings of grayish white, fulvous, and pale tawny; rump and upper tail-coverts and flanks conspicuously barred dusky and whitish; head and neck lightly streaked with whitish; underparts (except lining of wings, where pure slaty) variously mingled or clouded with sordid white; wing-quills and tail brownish black. Bill dusky black terminally, flesh-colored at base. *Second year birds:* Much as in foregoing, but plumage more blended, nebulation of finer pattern, and general color tone more uniform and with a tinge of vinaceous. *Third year and transition plumages:* (The precise sequences are too complex for our consideration.) General pattern of adult, but white decreasingly clouded with vinaceous dusky, wings decreasingly patched or clouded with brownish gray; primaries lustrous brownish black, *without any white* (this being in some examples the last adult character assumed); tail decreasingly marked with black; black of bill decreasingly persistent on tip. Meas-

Taken in Santa Barbara *Photo by the Author*

HIS RASCALITY, THE WESTERN GULL

urements: length of adult 558.8-685.8 (22.00-27.00); av. of 10 Monterey specimens: length 580.4 (22.85); wing 420 (16.5); tail 162.4 (6.39); bill 53.3 (2.10); depth at angle 20.2 (.79); depth at nostril (base) 18.4 (.72); tarsus 69.5 (2.74).

Recognition Marks.—Standard of "gull size"; dark slaty blue of mantle distinctive in adult; adolescent black spot on angle of gonys less persistent than in other species; pattern of wing-tip simpler than in many, but not affording good field mark; uniform black of primaries long persistent, and best character of young birds, as distinguished from either *L. glaucescens* or *L. argentatus*; body plumage of young darkest.

Nesting.— *Nest:* Placed on ground or in rock niche of sea-girt islet; bulky or scanty; a shallow crater of grasses, dried sea wrack, seaweed, or locally, of "Farallon weed," a coarse composite; ten inches from brim to brim by three inches deep. *Eggs:*

3, rarely 4; if second set, 2. *Normal Gull type* (applicable as a basis for description of all species nesting within the United States): ovate or elongate ovate; *ground-color* (light phase): pale olive-buff or olive-buff, more rarely cartridge-buff, tilleul buff, or pinkish buff; (middle phase): deep to dark olive-buff: (dark phase), light brownish olive to buffy olive, tawny olive, isabella color, or, rarely, buffy brown. *Pigmentation* (of four general types): first, boldly and rather sparingly *spotted* with brownish black or dark sepia (washing to Saccardo's umber), or bister (washing to Prout's brown), or light brownish olive (washing to isabella color), exceptionally, tawny olive or brownish olive (washing to buffy olive), yellowish olive or cinnamon-buff; second, as first type, with much doubling or "shadowing" (under-shell marking) by violet-gray of various shades; third, color of pigments as before, but pattern highly diverse, vermiculated or scrawled, scrawling sometimes confined to a broad girdle around the larger end, but often involv-

Taken on the Southeast Farallon *Photo by the Author*

AN EXPOSED DOMICILE

ing the entire egg in intricate patterns; fourth, pattern more or less suppressed or blended. Abnormally, pigment sometimes altogether wanting, and sometimes absolutely confined to cap on larger end. *In general: eggs clay- or stone-colored, spotted and blotched with brownish black.* As compared with the foregoing, eggs of the Western Gull incline to middle and darker grounds, and exhibit a high degree of variation. Av. of 40 specimens in the M. C. O. coll.: 69.9 x 49.3 (2.756 x 1.944); index 70.5. Range of measurements: 66.3-75.7 by 45.2-52.3 (2.61-2.98 by 1.78-2.06). *Season:* March–June, according to latitude (July–August where molested); one brood.

General Range.—Pacific Coast of North America, breeding from Lower California north to the coast of Washington (Willoughby Rock, Carroll Islet); at the close of the breeding season wandering north to the coasts of British Columbia, and southward to the Tres Marias Islands off Tepic.

Distribution in California.—Resident; breeds abundantly on suitable islets

Photo by D. R. Dickey

THE ETERNAL QUEST

along the entire coast, and upon some of the rocky headlands. Especially numerous on the Farallons. Occurs casually in the interior.

Authorities.—Lawrence (*Larus occidentalis*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 845 (Bodega; Presidio; San Diego); *W. E. Bryant*, Proc. Calif. Acad. Sci., ser. 2, i., 1888, p. 37 (Farallon Ids., breeding; nest and eggs).

No. 274a Hyperion Gull

A. O. U. No. 49, part. **Larus occidentalis livens** Dwight.

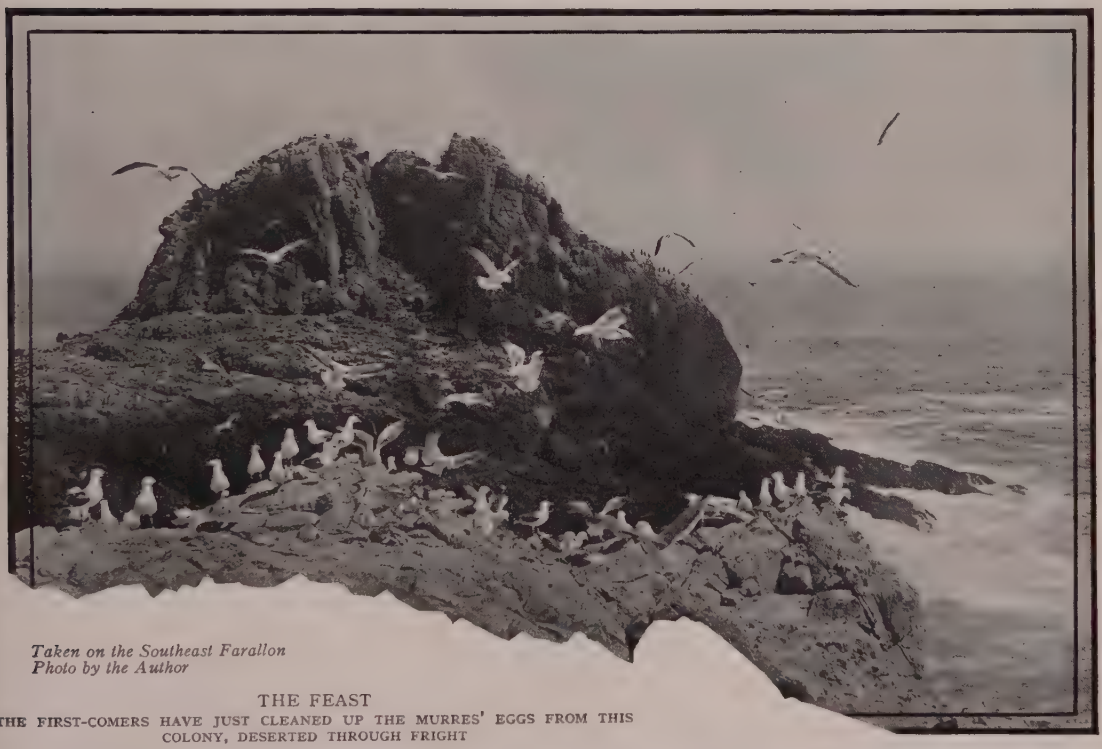
Synonym.—Dwight's Western Gull.

Description.—"Similar to *Larus occidentalis occidentalis*, but mantle a darker plumbeous or deep neutral instead of plain neutral gray and usually four outer primaries, instead of two, black basally without gray areas" (Dwight).

Range.—Both coasts of Lower California, breeding north to the Farallon Islands.

Authority.—Dwight, Proc. Biol. Soc. Wash., vol. 32, Feb. 14, 1919, pp. 11-14. [Under the particular description (p. 12) we read: "Tarsi and feet in life lemon yellow," and again, "Both forms of *occidentalis* have yellow feet (the tarsus of the type of *livens* is recorded by the collector as 'lemon yellow')." Again, "Apparently Schlegel (Mus. Pays. Bas, vi., 1863, p. 15) was the first writer to correctly describe the species as having yellow feet." All this, of course, is exquisitely incorrect. The feet of all adult gulls of the *occidentalis* type are *red*].

MUCH THAT IS GOOD and all that is evil has gathered itself up into the Western Gull. He is rather the handsomest of the blue-mantled *Laridæ*, for the depth of color in the mantle, in sharp contrast with the snowy plumage of back and breast, gives him an appearance of sturdiness and quality which is not easily dispelled by subsequent knowledge of the black heart within. As a scavenger, the Western Gull is impeccable. Wielding the besom of hunger, he and his kind sweep the beaches clean and purge the water-front of all pollution. But a scavenger is not necessarily a good citizen. Call him a ghoul, rather, for the Western Gull is cruel of beak and bottomless of maw. Pity, with him, is a thing unknown; and when one of their own comrades dies, these feathered jackals fall upon him without compunction, a veritable *Leichnamveränderungsgebrauchsgesellschaft*. If he thus mistreats his own kind, be assured that this gull



Taken on the Southeast Farallon
Photo by the Author

THE FEAST

THE FIRST-COMERS HAVE JUST CLEANED UP THE MURRES' EGGS FROM THIS COLONY, DESERTED THROUGH FRIGHT

asks only two questions of any other living thing: First, "Am I hungry?" (Ans., "Yes.") Second, "Can I get away with it?" (Ans., "I'll try.")

The ocean, to be sure, offers the gull an abundance of "natural" food. Surface-ranging fish, herring, smelt, and the like, are staple objects of pur-

Taken in Santa Barbara *Photo by the Author*

A CLOSE-UP

suit; and the birds quarter the sea at a considerable height until some indication of a traveling school is noted. Tell-tale haste on the part of any one bird is remarked by distant comrades, and all hurry to the scene of slaughter. Excited screams publish the news still more widely, if the prospect is a good one, and a thousand birds may join the feast before the bewildered fish realize that they are furnishing both mirth and meat, and go below. Danger past, the fish soon return, and the wily gulls, according to Anthony, by stalking them from the rear, are able to make another raid before the alarm has become general.

The Indians understood the value of this fish-finding propensity on the part of the gulls, and when the birds followed the smelt ashore, at a northern village, a shout would run from hut to hut and the seine be hurried out. And the fishermen of today are so much alive to the advantages afforded by these observation planes that they share the booty good-naturedly when a fat haul has been made.

When fish are scarce the gulls resort to the beach and strip every carcass, whether of fish, flesh, or fowl, which the sea has cast up. Once, after a storm, on a northern beach, I followed a high-piled windrow of dead tom-cods for miles. The gulls were in their glory, but in spite of the fact that meat was so abundant, I noticed that each bird stuck to his job, once it was started, and was willing to contest his rights against all comers. Seeing a half-picked carcass at the end of a trail upon the sand, I traced it one hundred paces, by actual count, to its original resting place. In dragging it the successful bird had, naturally, pulled backward, so that his course was marked throughout by reversed footprints.

Next after carrion, clams are a favorite food. These are gleaned from the surface, where they have been cast by the tide; or, in rarer instances, they are dug, most actively, from their burrows in the sand. The "razor-backs" are easily crushed and gutted; but the cockles require a most ingenious expedient. According to many witnesses, a gull will carry the clam aloft and drop it on the rocks, where the shell will be smashed and the contents released. Anthony tells of instances where birds had only half learned their lessons and dropped the clams upon the sand,

Taken on the S. E. Farallon *Photo by the Author*

A BREEDING COLONY

seemingly much mystified that the pronunciation of the sacred formula, "Open sesame," had failed to effect the desired result. Mrs. Bailey tells of a fisherman at Tillamook Bay who dug a sack of clams, and, not wishing to pause just then to wash them and stow them away in the boat, threw them down on shore and turned away to dig another sackful. When he returned he found that the busy gulls had cleaned out the whole pile, opening the shells and cleaning them so expertly that not a particle of meat was left.

It is at the breeding season, however, that the Western Gull accomplishes real mischief. While he effects a passable truce with his own kind at that season, it is that he may the better combine with his fellows and terrorize all other breeding sea-birds. As an egg-thief and as a kidnapper of infants the Western Gull is simply incorrigible. The only chance which the lesser fowl, petrels and auklets, have of escaping the

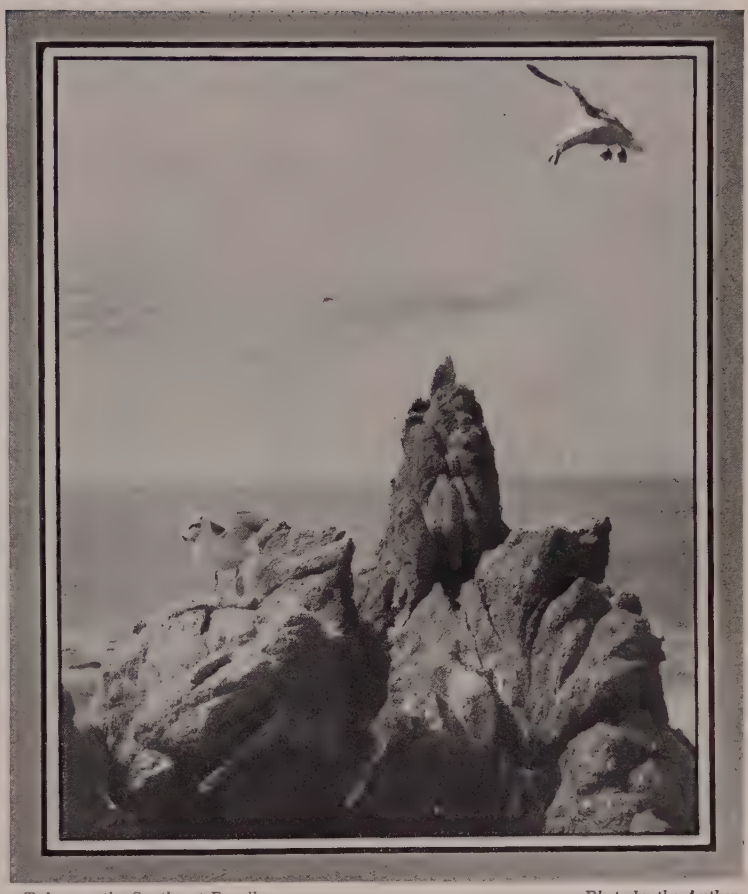
rapacious beak is to burrow under ground or to file into crevices. And at that Anthony tells us:[1] "I have seen a Western Gull pull a Cassin's Auklet from a somewhat more shallow burrow than the usual and swallow it whole with the same gusto and apparent relish with which it bolted the egg a moment later." A bird which can swallow an adult Cassin Auklet, a bird with a body fully as large as that of a robin, can make away with young murres and baby shags at an alarming rate. As a consequence, the murre ledges are repeatedly attacked and sometimes pillaged, in spite of the fact that the attendant parents huddle together in actual contact. The case with the cormorant is even more desperate, especially when the visit of a fisherman or a birdman puts the shags to flight. As Anthony says again:[2] "The advent of man in the region of a cormorant rookery is hailed with delight by every gull on the island; but to the poor cormorant it is a calamity of the deepest hue. As the frightened birds leave the nests, which have so far never been for a moment left without the protection of at least one of the parents, the screaming gulls descend in swarms to break and eat the eggs or kill the young as the case may be. Small cormorants are bolted entire despite their somewhat half-hearted

[1] "Random Notes on Pacific Coast Gulls" by A. W. Anthony.
[2] Auk, Vol. XXIII., April, 1906, pp. 135, 136.

Photo by the Author

GULLS AT REDONDO
CHIEFLY IMMATURE WESTERNS

protests; larger birds are dismembered by two gulls assisting in the operation, after the well-known manner of barnyard chickens with a worm; and before the adult cormorants have recovered from their fright and returned to protect their homes, a colony of several hundred nests will be almost destroyed. I have found young Western Gulls feeding on cormorant squabs half a mile or more from the nests from which they had been abducted."



Taken on the Southeast Farallon *Photo by the Author*

HEY! THERE!

THE PHOTOGRAPHER HAS BAITED THE BIRDS WITH MURRES' EGGS, AND THE OTHER FELLOW HAS "BEATEN HIM TO IT"

In this connection I cannot forbear some trenchant criticism of the policy which the Department of Agriculture has hitherto pursued with reference to the protection of certain coastal breeding grounds of the sea-fowl. It was highly proper that certain threatened species, such as the California Murre and the three species of Cormorants and the Black Oyster-catcher, should be guarded, not alone from the age-old depredations of the natives, but from the increasing encroachments of irresponsible whites; but when that protection, *applied indiscriminately*, had the effect of fostering and multiplying the worst enemy of those sea-fowl, namely, the Western Gull, the actual effect has been the direct opposite of that ostensibly intended. The Western Gull has thrived mightily under protection, while the other bird population has steadily decreased. If we are to assume to regulate the affairs of the sea-fowl, we must really *regulate* to the advantage of the greatest number of species, and not continue

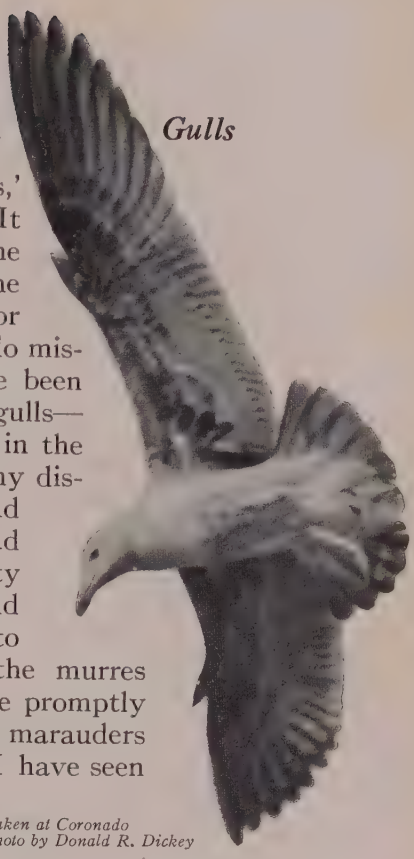
Taken at Santa Cruz *Photo by the Author*

WESTERN GULLS AT SANTA CRUZ

to raise wolves and sheep in the same fold. I am not, of course, in favor of annihilating the Western Gull; we need him—at least some of him; but I am in favor of reducing him to one-half or one-fourth of his present numbers. This should be done quietly and judiciously and *officially*.

In the spring of 1911 the writer was privileged to visit the Farallon Islands, which harbor the largest colonies of sea-birds, and especially of Western Gulls, to be found off the coast of California. The breeding population of gulls I estimated at 3000 pairs, an enormous increase over the days of the Portuguese "egg trust," which in the interest of "business" in Murres' eggs had kept the gull population sternly within bounds. The numbers of Murres, as a consequence, were sadly reduced, and the colony of Farallon Cormorants consisted of a pitiful remnant, some thirty-five pairs.

A page from my notebook under date of May 26 records the commonplaces of a two weeks' experience: "Nothing in the life of the Farallons is more striking than the rapacity of the gulls and their determination to profit by any excitement which will frighten the peasantry. No matter



Taken at Coronado
Photo by Donald R. Dickey

BANKING
NOTICE USE OF ALULA, OR "THUMB"

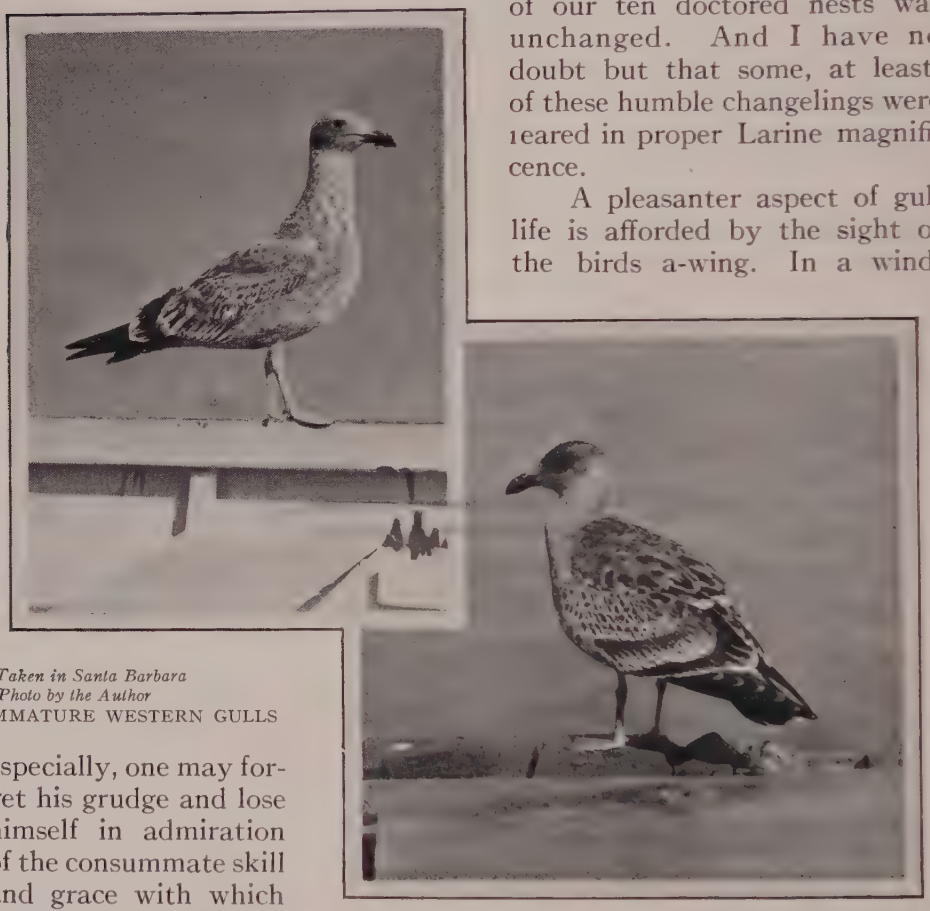
if their own homes are threatened, 'Rob the Murres,' they shout, and off they go to try for weak places. It has its historical analogies only in the persecution of the Christians at Rome or in the 'Jew baiting' of the Middle Ages. An idle mob finding itself assembled for any cause and cheated of its first object, proceeds to do mischief to the favorite weaklings. Today I may have been partly responsible for the assemblage of unoccupied gulls—I was making a discriminating study of egg colonies in the west nesting—but I was in no way responsible for any disquiet among the murres. The gulls started that, and my attention was called to it by the outcries on and beyond the crest of the west arch. A crowd of thirty or forty gulls were hovering over a murre ledge and members of the party were continually dipping down to harry the Rumpfoots. The tactics succeeded, for the murres crowded forward and exposed a few eggs, which were promptly seized. At this point I intervened and forestalled the marauders in the name of Science. On other occasions since, I have seen alarms raised among the gulls for which no human presence was responsible, and invariably there is a movement of apprehension along the ledges, a shifting of position and a little desertion on the part of the more timid. And invariably, also, a few gulls detach themselves from the quarreling crowd of their own kind and make a hurried reconnaissance of the loomeries."

We soon found that if we wanted to do photographic stunts we required no better bait than a few murres' eggs temptingly exposed. The first comer might be wary, but he soon lost his scruples; while each successful seizure thereafter would be chorused by a shout of envious approval from other gulls less bold.

By way of experiment, and to utilize certain murres' eggs which the gulls would have got otherwise anyhow, we arranged a little series of substitutions. Our victims were the gulls nesting on the "shell beach" nearest the north spur of the central ridge. We substituted a murre's egg for a gull's; and bestowed the surplus eggs so gathered upon another member of the gull family. Altogether we "doctored" ten nests, making a careful record of each change for future reference—then retired to note results. In every instance but one the birds returned promptly to their nests. The exception hesitated, apparently through fear of us, and not at all through suspicion of her nest. Even the one who had received a double portion of proper gull eggs did not hesitate to undertake her full

responsibilities. Not one of them appeared to question for a moment the propriety of brooding a garish murre's egg, and this in spite of the fact that every mother of them would have been keen to get a taste of the same egg on a murre ledge. Verily the gull is gullible!

Unfortunately, we were obliged to leave the islands ten days later, and just before the gulls were due to hatch; but we had the satisfaction of noting that the situation in nine of our ten doctored nests was unchanged. And I have no doubt but that some, at least, of these humble changelings were reared in proper Larine magnificence.



Taken in Santa Barbara
Photo by the Author
IMMATURE WESTERN GULLS

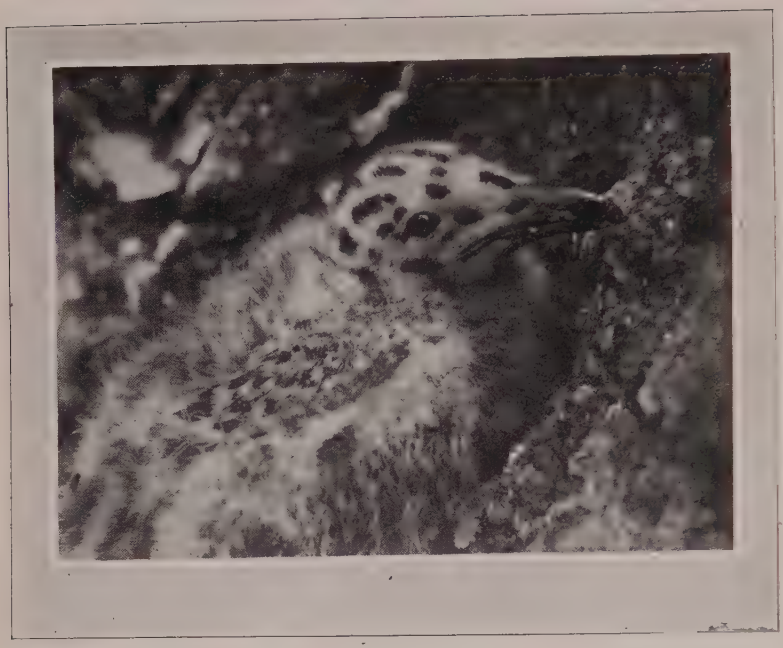
A pleasanter aspect of gull life is afforded by the sight of the birds a-wing. In a wind, especially, one may forget his grudge and lose himself in admiration of the consummate skill and grace with which the birds address themselves to the tasks of breasting the wind or coasting down the gale. Here is the original school of aviation—a forty-knot breeze blowing over "Maintop," the western eminence of the Southeast Farallon. Here, if ever, one will see bizarre postures and incipient shipwreck in the air. The most extraordinary thing is the development of speed. Even the

Taken in Humboldt County *Photo by the Author*

A NORTHERN BREEDING STATION

Taken on the S. E. Farallon *Photo by the Author*

NEST AND EGGS OF WESTERN GULL



Taken in Washington *Photo by the Author*

YOUNG WESTERN GULL

phlegmatic cormorants go hurtling about like meteors. The "Sea-Parrot," who looks like a pirate with the wind tossing his plumes about, enjoys a ride on the gale; and for all his wings are stubby he can poise on the air like a hawk, or else charge about like a ricocheting bullet. The highest speeds are made *against* the wind, and I am sure that the Baird Cormorant can do 120 miles an hour in the teeth of a forty-five mile norther. But the Western Gull enjoys the sport most of all. He passes and repasses the crest of the hill just for the fun of the thing. Now he lets the wind blow him up like a lost paper napkin, and now he cleaves it with the nicety of a descending razor. The most striking thing about these wind postures is the position of the feet. These are sometimes thrown violently forward, or else maintained in a perpendicular position to check speed or to cover flaws in the wind. Viewed from any angle, a gull or a shag with feet in full play cuts an odd figure.

The wings on these occasions are both arched and reefed, and so fierce are the cross currents and so sudden the flaws, that many of the efforts of the most skilled artists look like the first awkward sprawls of a boy on the ice. Every fiber is tested to the utmost. The bird—the gull at least—careens to absolute perpendicularity in banking; and I have seen a gull bring in the tip of one wing so that it nearly touched the body, and release it again in the fraction of an instant, while the other pinion was unchanged. Regarding the situation in a cold, dispassionate light, as one may, seated on the side of a cliff, *it is not an easy thing to fly*. The birds can have the job for all o' me.

The nesting of the Western Gull is undertaken in April, and the egg complement of three is provided by May 1st or June 1st, according to

latitude. The nests are composed of dried grasses and weeds plucked by the birds, roots and all; and these become quite substantial structures if the materials are convenient. Ledges, crannies, grassy hillsides, and the exposed summits of the rocks, are alike utilized for nesting sites; while occasionally a bird ventures down so close to the tide-line as to lose her eggs in time of storm. Chicks are brought off by the third week in May, or by the middle of June, according to season, if unmolested. If the first set is removed, however, the birds will prepare a second, consisting almost invariably of two eggs, and these are deposited as likely as not in the same nest as the former set. Deposition occurs at intervals of two or three days.

Taken on Anacapa Island *Photo by Donald R. Dickey*

NEST AT BASE OF *LEPTOSYNE GIGANTEA*

I recall visiting a smaller rock well up the coast where young birds, from infants to those half grown, were in hiding everywhere. The danger sign had, of course, been passed around, and not a youngster on the island but froze in his tracks, no matter where he happened to be. It was pathetic to find, as I did now and then, babes soaking heroically in the filthy green pools left in hollows of the rock by ancient rains, rather than attract attention by scrambling out. One youngster had evidently been nibbling playfully at a bit of driftwood cast high up, for I found him with the stick between his mandibles, as motionless as a Pompeian

mummy. In some instances, if the chick knew himself discovered, he felt free to shift his position with a view to betterment. But instinct did not serve a whit to guide the chicks in such efforts, and they were as likely to topple off a precipice as to find a safer haven.

A company of some hundred adults, fathers perhaps, lay offshore and watched proceedings; but the mothers gave me earnest attention. Three times I was struck upon the head, always from behind, by vicious beaks, while I was engaged in the benevolent task of gathering up babies for a picture. A plague upon this photography of infants anyway! It is appreciated by neither parent nor child. A gull-let in the bush is marble, but only his rump is visible; while a chick in the hand is the squirmiest product of nature. No, sir! he will not keep still, nor stay put for the pitiful fraction of a second. Ergo, the gallery of darlings is still incomplete.

Photo by Donald R. Dickey

AN EVENING MEDITATION

The case of the Pacific Coast Gulls offers a peremptory challenge in genodynamics. The dynamic evaluation of species, the appraisal of generic stock, of intergradation, and of isolated colonies,—these are fascinating problems in themselves; and in no other case do solutions appear so easy, so clear cut, or so important, as in the case of a species occupying detached island groups distributed over 24 degrees of longitude. I have already called attention to the fact[1] that the Western Gull at the extreme limit of its breeding range, viz., off the coast of Washington, appears to hybridize with *L. glaucescens*. A clear cut example of this came to light the year after "The Birds of Washington" was published, in 1910. When I had occasion to visit Grenville Point on the 27th day of August, a whining sound, coming from the crest of the Grenville Pillar, a detached rock some 100 yards distant, drew my attention to a very dark bird, a young gull, who was beseeching its wary parents for food. The old birds stood stolidly unheedful, but very alert to the danger ashore. Finally one bird made a scolding tour over my way. His (or her) wing-tips were absolutely devoid of black, a Glaucous-wing if there is any such thing. This bird's mate, known to be such because these two were the only gulls on the rock, and because the chick addressed them both in turn and that repeatedly, was an unmistakable Western, having a somewhat darker mantle and wing-tips definitely black.

And other such examples, less marked but cumulative in their total impression, met my gaze during an inspection tour of the Olympiades bird reserves, conducted in the early summer of 1910. It is very noteworthy, therefore, in this connection that eggs found in this debatable country, off the Washington coast, exhibit the highest degree of variation —due to the interplay of diverse stocks. Southern colonies, on the other hand, so far as examined, exhibit a notable uniformity in respect to the eggs. Save for a few "freaks," due to deficiency in pigmentation, I did not find among a thousand nests examined, on the Southeast Farallon Island, one-fourth the range of variation that obtains on a single rock off the Washington coast (Split Rock), which boasts a population of only forty pairs. Evidently the Farallon colony is closely inbred, or at least reduced to uniformity through long isolation and the absence of any infusion of new stock. There is meat here, and a close study of oölogy will bring important conclusions to light.

[1] "Birds of Washington," 1909, Vol. II., p. 726.

No. 275

Herring Gull

A. O. U. No. 51. **Larus argentatus argentatus** Pontoppidan.

Description.—[This, although undoubtedly the central figure of a large group of similar and closely related members of the genus *Larus*, may for our purposes best be described in terms of constant comparison with the foregoing]. *Adult in summer:* Similar to *L. occidentalis*, but bill relatively slenderer and with angle less pronounced; and color of mantle much lighter, deep pearl-gray instead of plumbeous; pattern of wing-tip subsimilar, but black more restricted by earlier invasion of basal gray, this gray appearing on inner web of 1st primary, and pushing to within two inches of the tip of the 3rd; whereas in *occidentalis* the gray only begins to appear, faintly, on the inner web of the 4th; the pattern of terminal and subterminal white is, however, almost exactly the same. Bill yellow, with spot of vermilion at angle of gonys; feet pale rosy or flesh-color, perhaps a little lighter than *L. occidentalis*. *Early plumages and plumage changes:* as in *L. occidentalis*. First year birds are lighter and less abruptly varied; 2nd year birds are of a lighter shade of grayish brown, and are especially lighter in color on wing-tips and tail (where brownish gray or brownish dusky instead of brownish black); 3rd year birds, not otherwise easily distinguishable, show invasion of characteristic pearl-gray on mantle; *near adult birds* show retarded evolution in the persistence of adolescent black on tip of bill; and fully adult birds in the recurrence of nebulation (with brownish dusky) on head and neck all around, and sides of breast, in winter. Length 558.8-660.4 (22.00-26.00); av. of 10 Monterey specimens: length 600 (23.65); wing 441.4 (17.4); tail 163.2 (6.43); bill 56.9 (2.24); depth at angle 18.1 (.71); depth at base of nostril 16.8 (.66); tarsus 66.5 (2.62).

Recognition Marks.—Standard of "gull size"; mantle rather light bluish gray; *black* wing-tips (with white spots on adult) serve to distinguish from *L. glaucescens;* rosy feet from *L. californicus* (this is the sole certain distinction a-wing) and *delawarensis;* less extensive black on wing-tip and lighter mantle from *occidentalis*.

Nesting.—Does not breed in California. *Nest:* Of weeds and grasses on the ground, or, exceptionally, in (coniferous) trees. *Eggs:* 3; of normal type (see under preceding species). Av. size 71.1 x 48.3 (2.80 x 1.90). *Season:* June.

General Range.—Northern Hemisphere. In America, breeds from coast of Maine, northern New York, islands in Lake Huron north of Lat. 44, and Lake Michigan (Green Bay), Minnesota, Manitoba, and southern British Columbia, north to high Arctic latitudes. Winters south to Cuba, Florida, coast of Texas, Yucatan, and Tepic.

Distribution in California.—Common winter resident along the entire coast; less common south of Monterey. Abundant in San Francisco Bay. Casual in the interior (Salton Sea, Jan. 30, 1913).

Authorities.—Vigors (*Larus argentatus*), Zool. Voy. "Blossom," 1839, p. 39 (coast of Calif.); *Kobbe*, Auk, vol. xix., 1902, p. 19 (San Francisco; crit.; relationship to *vegæ*); *Dwight*, Auk, vol. xxxvii., 1920, p. 266 (plumages and molt).

"CAPTAIN, how many kinds of gulls do you see here in the course of a year?" "Gulls? Kinds of gulls?" repeats the man in the pilot-house, the man who knows buoys, harbor lights, and all proper things of

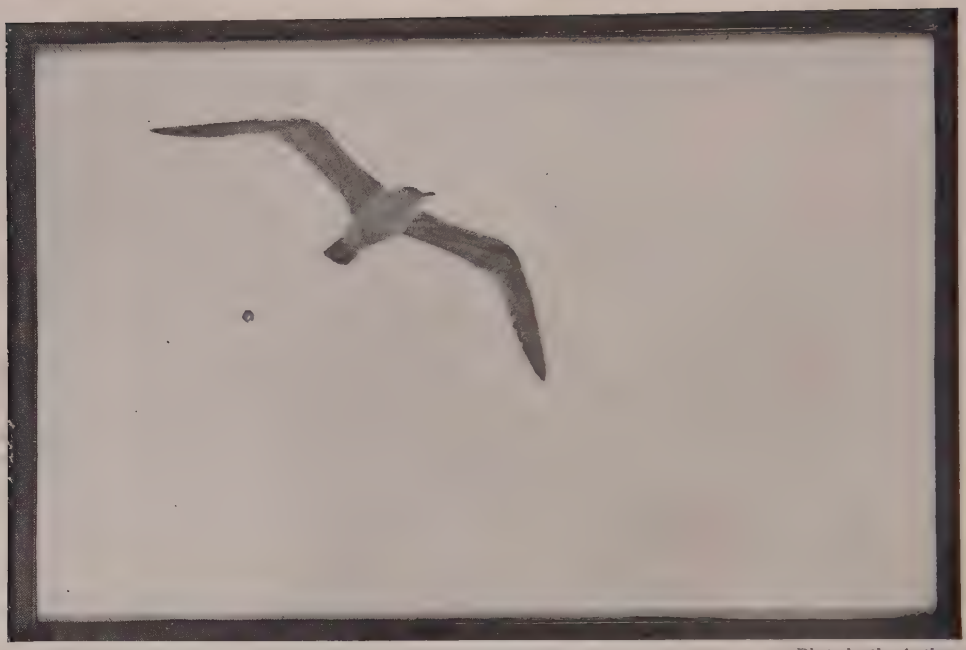
seamanship like a book. "Why, there isn't more than one kind, is there? Well, yes; mebbe they's two kinds, the dark ones and the white ones; or mebbe they's big and little ones." This, of faithful attendants after twenty years' service at sea!

We know, of course, that there are thirteen kinds of gulls in California, besides their blood relatives, the Jaegers and Terns, of which there

Taken in Seattle *From a photograph, copyright 1908, by W. L. Dawson*

A GULL MÉLANGE

are four and eight species, respectively. The captain might have been sooner pardoned if he had answered "Forty!"; for when to the subtle but shifting variety of adult marking is added the interminable shading of childhood and youth, you have a scene of confusion worse confounded, in which not even the expert is at home. But let us see if a little light is possible: The dingy, mottled, or blackish gulls are (with one exception) young birds of the first and second years. Save in the case of Heermann's Gull (*B. heermanni*) all adult gulls are chiefly white, with the upper surfaces of back and wings—the mantle—chiefly blue-gray (pearly gray, ashy gray, or plumbeous); while, also with one exception, the tips of the wings, or primaries, are black, variously spotted and blotched (or not)



Taken in San Luis Obispo County *Photo by the Author*

with white. All birds which show mixed characters, such as black tail and wing-quills, with mottled plumage, etc., are juveniles of the second or third year.

The most persistent juvenile characteristic in the case of the common larger gulls (*Larus glaucescens, occidentalis, argentatus, californicus, delawarensis,* and *brachyrhynchus*) is a gradually diminishing area of black upon the beak (although this in its reduced form is an adult characteristic of *L. californicus* and *L. delawarensis*). With advancing age gulls tend to become lighter in coloration; and in extreme examples (as in the case of certain Western Gulls) the black wing-tips bleach nearly to whiteness, although the characteristic pattern may still be dimly discerned.

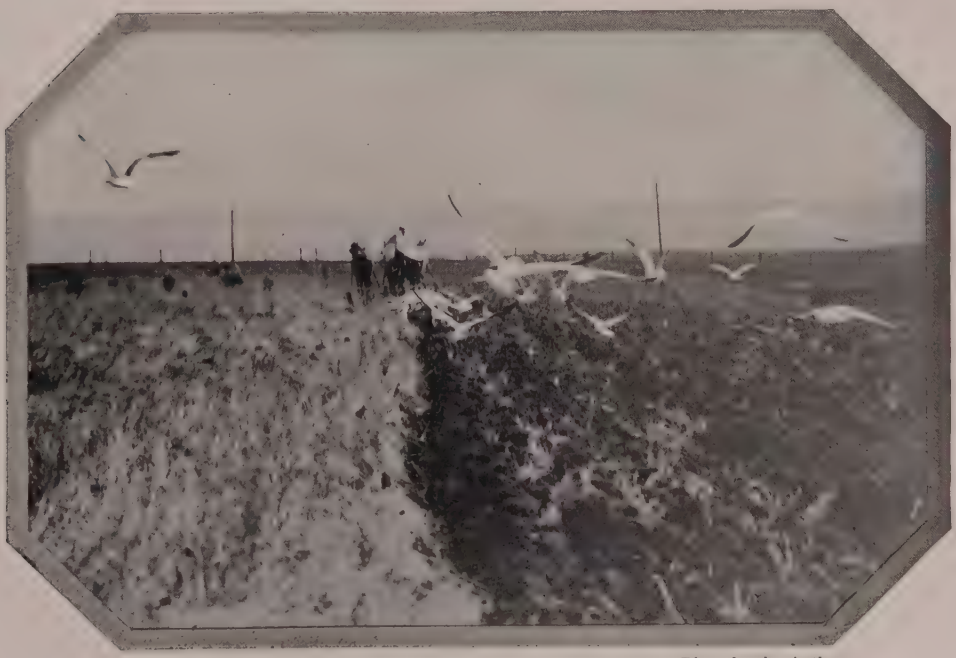
Size is also a very variable characteristic in the larger gulls, and it is impossible to distinguish *Larus argentatus* from *glaucescens* on the one hand, or *californicus* on the other, from the standpoint of size alone.

And while we are about it, we may as well repeat that the color of the feet and legs (tarsi) affords one of the most valuable distinctions in the field recognition of all gulls. The Herring Gull belongs to the group having *red* legs, and only by this mark may it be infallibly separated from the California Gull which has gray-green legs.

The Herring Gull begins to return from its northern breeding grounds

as early as the first of September. By October there is a fair sprinkling of this species in most harbor-haunting or coastwise flock of gulls, but the local status of the species is incessantly changing. Much depends upon weather conditions in southern Alaska and British Columbia. A storm or a cold snap as late as January will bring thousands of gulls of this and allied species hurrying down from the North, and may quite alter the complexion of the local gull fauna.

Many birds attach themselves to coastwise vessels, and some few follow faithfully from Eureka to San Francisco, or from the Bay Cities to San Diego. Vessels plying to Portland and Puget Sound ports put further out to sea, and so lose their Larine super-cargoes, but as they approach the Golden Gate they are greeted by waiting crews of these enthusiastic and hungry servitors. When not dancing in close attendance upon ships, the gulls move extensively along the coastline at the dictation of the prevailing wind. Even in midwinter, when the birds would prefer to remain in the South, they seem to have no choice but to breast the wind, and so will move up the coast hundreds of miles in a day, if the wind is from the west or northwest. They work their way down coast again in calm weather, or else breast the south wind. In migratory flight, or when



Taken in Santa Barbara County *Photo by the Author*

FOLLOWING THE PLOW

challenged thus by the wind, the gulls follow by preference either in dead air just off the cliffs, or else immediately above the cliff-line, as needs may require. None are more expert than Captain Argentatus in judging wind values, or in covering a flaw made by an indentation of the cliff-line. The predilection which the moving birds show for the cliff-line is the photographer's opportunity. He has but to conceal himself in some cliff-hung barranca and take pictorial toll to his heart's content. And certainly there is nothing in all nature more enchanting, more enviable, or more artistically compelling than a company of sea-gulls faring splendidly northward in the face of a merry piping gale.

No. 276

California Gull

A. O. U. No. 53. **Larus californicus** Lawrence.

Description.—*Adult:* Mantle deep pearl-gray (decidedly darker than in *argentatus;* tip of wing (six outer primaries) chiefly black; the black of 1st primary interrupted near tip by blotch of white about two inches in length (in some specimens subterminal black deleted, i. e., tip entirely white), shaft of feather white in this portion, area of white decreasing on inner web; 2nd primary less extensively blotched with white, forming in the exposed wing with the preceding a wedge-shaped area of white, largest anteriorly, shaft of this quill black throughout; tips of all white; black disappearing in small subterminal bar of 6th; invasion by basal white not too rapid as in *argentatus*, coming within two inches of tip of 5th primary; remaining plumage pure white. *In winter* streaked and clouded with brownish dusky on crown, cervix, and neck all around. Bill yellow, crossed subterminally by a broken band of black (thus effecting the transition to *L. delawarensis*, from which it is distinguished by a heavy vermilion patch on gonys; irides brown; feet and tarsi greenish gray or yellowish gray. *Young, first and second years:* In general, mottled brownish gray and white, much as in preceding species, but back and wings more highly variegated in grays of three shades; chin and throat dull whitish, very lightly or scarcely streaked; wing-quills and tail brownish black (averaging much darker in tone than that of *L. argentatus*). Bill yellow at base, abruptly black-tipped. *Transition plumages:* as before; a subterminal bar of black on bill being the last juvenile character to disappear. *Measurements:* Length of adult 482.6-584.2 (19.00-23.00). Av. of 10 Monterey specimens: length 508 (20.00); wing 404 (15.91); tail 148.3 (5.84); bill 46.3 (1.82); depth at angle 15 (.59); depth at nostril 14.3 (.56); tarsus 57.4 (2.26).

Recognition Marks.—Small gull size; *feet greenish gray* (distinguishing from all but *delawarensis*, which is lighter gray as to mantle, and more extensively black as to beak; and from *brachyrhynchus*, which is smaller with relatively smaller beak); large wedge-shaped spot of white near tip of wing; otherwise much like *argentatus*, which at its maximum it closely approaches in size.

Nesting.—Of weeds, grasses, and a few feathers, on the ground. *Eggs:* 3 (4 of record); as in Western Gull, but more variable. Av. of 40 specimens in M. C. O.

coll.: 65.3 x 44.2 (2.57 x 1.74); index 66.6; range 56.6-71.9 by 34.3-47 (2.23-2.83 by 1.35-1.85). *Season:* May–June; one brood.

General Range.—Western North America, breeding in the interior from eastern California, Nevada, and North Dakota, north to northern Mackenzie. Occurs during migrations along the Pacific Coast from British Columbia southward, less commonly in the interior east to Colorado, Kansas, and Texas. Winters chiefly along the coast of California and south to southern Mexico; also casually north to Puget Sound.

Distribution in California.—Common winter resident along the coast, being especially common in the harbors and in attendance on shipping. Present more or less casually upon inland waters after the close of the breeding season. Breeds in large colonies upon islands of the larger lakes, from Monō north. Also, formerly, in the Sacramento River.

Authorities.—Lawrence (*Larus californicus*), Ann. Lyc. Nat. Hist. N. Y., vol. vi., 1854, p. 79 (orig. desc.; type locality, Stockton); *Townsend*, Proc. U. S. Nat. Mus., vol. x., 1887, p. 191 (Eagle Lake, breeding); *Finley*, Condor, vol. ix., 1907, p. 12, figs. (Klamath Lake, breeding); *H. C. Bryant*, Condor, vol. xxi., 1919, p. 127 (eating earthworms).

ken in Washington *Photo by the Author*

A WELTER OF WINGS

GULLS fill a large place not alone in the "economy of nature" but in the affections and economics of men. Latterly the envy and despair of the automotive engineer, the way of a gull both afoot and aloft has always intrigued the admiration of human kind. Little naked savages, foregathered with their elders about some reeking clam stew, have darted at them ever and again and have pelted them with futile stones, and then fallen silent as the birds chanted their runes of hungry protest, or winged securely aloft in scorn of tribal happenings. Fishermen for a thousand centuries have alternately wrangled and fraternized with them, now brandishing an oar in impotent rage, and now flinging a largess of fish in wondering obedience to some higher law of pity. The picnicking tourist, lolling on a southern beach, marks the passing legions of the air with squinting eyes, or else bestirs himself to offer refreshment, a neglected sandwich or a surplus bun. The artist and the poet, too, chief of na-

Taken on Paoha Island *Photo by the Author*

LARUS CALIFORNICUS

ture's appraisers, mark these fluent notes of white-and-flesh-and-gray and smear them upon canvass, or weave them into distiches, according to their kind. And last of all, plain mortals, who know not exactly why they are glad at the seashore, and care not so they are so, these borrow also of the gull the fuel of those unquestioned fires of average content. And though we may appraise the blueness of waters and the brightness of skies and the genial warmth of sands, it is, after all, the gulls and their kind who give the crowning touch of life to any littoral scene.

The Pacific shores in winter are highly favored by an abundant and a would-be friendly host of northern pilgrims, among them gulls of eight or nine varieties. And of these the California Gull is most closely attached to the ferry boats of the Bay Cities and to the coastwise steamers which ply from Crescent City to San Diego. These gulls play pilot, hovering angel, and passenger, by turns; and often, for the sheer humor of the thing, trail doggedly behind, as though flying, forsooth, were hard work.

The gulls take a lively interest in the passengers, but it is the cook who has the key to the gull heart. It is for his sake alone that the birds have forsworn the sunny beaches and have attached themselves to the caravels of commerce.

"He may live without love—what is passion but pining?
But where is the *gull* that can live without dining?"

If you would cultivate gull society, fee the galley for a loaf of bread and smuggle it up surreptitiously to the hurricane deck, well aft. Now for some fun! The hungry horde weaves to and fro, forward and back, up and down and around, mewing expectantly like a litter of kittens at milking time. Hold up a piece of bread and the pace becomes furious. "Please! please! please!" they cry, until their mandibles fairly quiver with eagerness. But none snatches it from your hand; they are too well disciplined in the treacherous ways of men for that. When at last the bit is flung—instant silence. Every gray bolt is launched at the falling bread and the water where it must pause. Crash! And the clamor bursts out afresh, for the luckless many must voice their disappointment while the lucky one gulps down the prize and hurries back for more.

Gulls do not ordinarily dive, for they are light as corks. They snatch their food rather from the surface of the water. If there is plenty, as when the cook dumps the accumulated leavings from the captain's table, the gulls settle gracefully upon the water and throw the morsels down by rapidly succeeding jets of the head.

Taken in Seattle *Photo by the Author*

SUCCESS

The more experienced birds learn to catch bread on the wing, and the disclosure of such ability guarantees its owner a full meal. It is no small trick to catch a bit of flying bread in the teeth of the wind, for it is sometimes a nice fraction of a second between the bestowing hand and the bird's beak.

Long before the bread gives out, you have been seized afresh with wonder at the mystery of that gliding flight. Graceful, effortless, untiring, but above all mysterious, is that power of propulsion by which the bird moves forward into the teeth of the gale,—indeed, is advanced all the more certainly and freely when the wind is strong. From the deck of a steamer making fifteen miles an hour against a fifteen knot breeze, I once stretched my hand toward a soaring gull. He lay suspended in midair without the flutter of a feather, while the air rushed past him at the rate of thirty miles an hour; and he maintained the same relative position to my hand, at five or six feet, for about a minute. When he tired

Taken in Seattle *Photo by the Author*

DREAMS

of the game, he shot forward. And again, there was not in the motion the slightest perceptible effort of propulsion, but only a slightly sharper inclination of the body and wings downward.

This challenging mystery of effortless flight has found a rational explanation at last. Theoretically, at least, automotive engineers have come to realize that the propulsive thrust whereby the bird is driven against and through the very wind which impels it, is due to the perfection of the stream-lining of the bird's body and wings. Just as a fresh watermelon seed escapes from the pressed thumb and finger, so a bird's wing, squeezed above and below by the resolving elements of the wind, shoots forward. These are deep waters for a layman, but I have discoursed with a reputable engineer who claims to have produced models wherein the frontal resistance is reduced to four per cent (of the normally opposed flat surface), and who dreams of an airplane so cunningly contrived that the frontal resistance will be transferred to the *minus side of the account*. Such a machine could fly faster against an opposing wind than with it, and given a sufficient elevation to guard against air holes or momentary imperfections in balancing, could advance against the wind (and only so)

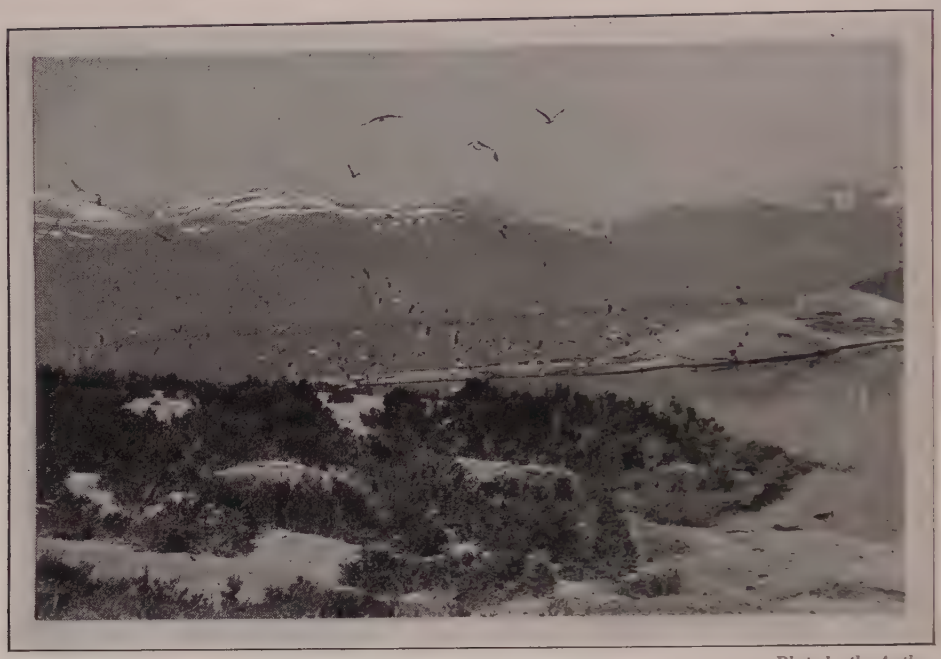
without power. Thus we shall have acquired by laborious mastery what the birds have as a free gift.

But to get back to those gulls we are watching. Forward and back, to and fro, and around—why, Hello! There's a bird without any feet. Won't he have a hard time of it though! And now—why, there's another! Not a vestige! The immaculate feathers close over the footless stumps and betray no sign of their presence. The wind is searching, and Mr. Gull, who does not approve of chilblains, kicks his yellow feet one at a time under the white blanket of feathers provided by the under tail-coverts, and proceeds, footless, upon the mazy journey. What's the use of feet, anyway, when you have wings?

On the voyage, feet are useful only as the birds take turns at the mast-head, pausing for a moment with wings gracefully outstretched until they have mastered the motion of the boat. These stations on mast and flag-staff are jealously coveted, and the gull that would hold one must be vigilant in defense, or at least ready to bluff the aspirant with a mighty scowl. Otherwise a quick dab from behind will upset the dignified Burgomaster, balance, dignity, and all. But who may comprehend by epithet or episode the unflagging charm of the white-winged fleet,—now in the van leading away with brave impudence, now registering a retreat with far-flung shadows on the smoke-stack, now trailing laboriously in the wake, like faithful hounds in leash. What humility of supplication! What perfect independence! What condescension of grace! What boundless exultation of wings, *wings*, WINGS! Oh, who would not give hands and feet for wings! Is it any wonder that the lure of the air has caught us, and that we are still offering up the lives of our best and bravest upon the altar of progressive "achievement"?

aken in Washington *Photo by the Author*

A FLOCK OF HYDROPLANES



Taken in Mono County *Photo by the Author*

THE WEST NESTING: PAOHA ISLAND

Space will fail us before we can tell of the migration of the California Gull, of its extensive distribution at these seasons throughout the State, and of its partiality for the mud flats and undisturbed loafing places. We cannot speak at length of the birds' fondness for an evening or midday stroll through the skies, nor of the diligence with which they wait upon the plow and gather up grubs and earthworms. These traits the California Gull shares with certain other species, although this species stands preëminent among them as the farmer's assistant. One observer has reported[1] a specimen whose stomach contents consisted of black crickets and three whole meadow-mice. And it was to a colony of California Gulls, I believe, that the early Mormons owed their "providential" deliverance from a scourge of black crickets. At any rate the grateful children of these pioneers have commemorated such an occurrence in the famous gull monument in Salt Lake City.

We are in haste, rather, to get at these birds in their summer haunts, for our sojourn with them will be too brief at best. Doubtless in the very early days the California Gulls bred much more extensively upon the island fastnesses of our larger lakes than they do at present. One large colony, at least, is known to have persisted at a shifting station somewhere in the

[1] H. C. Ohl in Calif. Fish and Game, Vol. 2, No. 4, p. 218.

middle stretches of the Sacramento River until within very recent years. Cooke,[1] quoting Finley, states that they breed on Lower Klamath Lake (in Oregon) and at Clear Lake. They have been found nesting in small numbers at Lake Tahoe and on Eagle Lake. But the classical home nesting-ground of the California Gull is Mono Lake. It was the author's privilege to visit this spot in June, 1919, and the following account chiefly involves observations made at that time.

Mono Lake is a sheet of water some eighty-five square miles in extent, which lies about midway of the State at the eastern foot of the Sierras, at an elevation of over 6400 feet, and which stretches away to the eastward into unreclaimed desert. Its waters are strongly impregnated with potash, sodium sulphate, and other salts, and are, of course, not potable. In spite of this handicap, they swarm with "a small Branchipus-like Phyllopod," and the larvæ of a certain fly. The former are ghostly pale creatures, which appear more like deserted casts than objects still animate. Yet it is upon these and the myriad flies which gather at the water's edge that the teeming bird life of the region must feed. The expanse of the lake is broken by two islands, Paoha and Negit. The former, which has a land surface of nearly two

[1] Wells W. Cooke, U. S. Dept. of Agriculture Bulletin No. 292, (1915), p. 41.

Taken in Mono County *Photo by the Author*

NEST AND EGGS OF CALIFORNIA GULL

Taken in Mono County *Photo by the Author*

A HAUGHTY COPPER

square miles, is a low-lying sharply-rolling expanse of stratified materials, chiefly volcanic ash, sparsely covered with atriplex and other typically desert vegetation. The northern third of the island, however, is eruptive, the extreme tip being an almost impassable welter of recently cooled lava of a reddish black color. Negit Island is another example of the same eruptive movement, and stands hard by, a grim red sentinel, fit only for the tenure of hardy sea fowl.

Through the courtesy of the owner of Paoha, Mr. W. D. McPherson, who is transforming this desert principality into a model goat-farm, we were privileged to visit the two colonies of California Gulls on Paoha and the main colony on Negit. In the "lagoon colony" we found, on the 3rd day of June, 250 pairs of birds gathered upon the sloping banks of a small lagoon tributary to the lake. The birds rose as we approached but settled quickly and did not exhibit a great fear of our presence. It was a critical time in the gull calendar, for the eggs were hatching, and we felt impelled to make our reconnaissance as brief as possible. The sun was burning hot, and the birds had availed themselves as far as possible of the scanty cover of atriplex and artemisia in the location of their nests. The nests were in many instances mere shallow depressions in the earth,

but they varied from this negligence, or haste, up to elaborate structures an inch or more in thickness, composed of twigs, frayed stems and bark of atriplex or sage, and especially of feathers.

At the Black Rocks colony on Paoha we found a very different physical setting. The point consists of an exceedingly rough lava field whose cooling surface has been eroded into most fantastic forms of knob and minaret,—a veritable devil's post-pile. The lower hollows have in many instances been filled up by a combination of pumice and guano, and these false floors, in many places undermined by the rising waters of the lake, would suddenly give way beneath our feet.

Nesting was for the most part conducted along a strip within twenty feet of the water, and on a ridge a hundred yards in length, which projected itself into the water. Some minor detached rocks had tenants, and a gravel bar at the extreme tip of the island was crowded. Some birds had placed their nests so near the water's edge that the rise, very rapid,

Taken on Paoha Island *Photo by the Author*

SCENE IN THE BLACK ROCKS NESTING COLONY

they say, during the past month, had engulfed them. Nesting material being more difficult to procure in this section, most linings were of the scantiest, and few were seen which excited our cupidity.

As in the other colony, the season was near the hatching point, and perhaps one-third of the eggs were pipped.

The census conducted on the afternoon of the 3rd showed a total of 499 occupied nests, of which 10 with young (one or more), 64 singles, 290 twos, 134 threes, and one four. Again, the number of nests which contained two eggs exceeded all others put together, and outnumbered the threes, two to one. A few more nests, ten or a dozen, were noted on the

Taken on Paoha Island *Photo by the Author*

MATING TIME

following day in an outlying colony. To this total of over 500 pairs should probably be added 100 for those overlooked, hatched out, or destroyed, a total for the colony of 600 pairs, and for the island of 850.

On the occasion of a second visit to the Black Rock colony, we heard gull voices from Negit, half or three quarters of a mile distant. Accordingly, we importuned Mr. McPherson for passage, and were allowed three riotous hours upon the island on the following day (June 5th). We found here on the east point of Negit Island the most populous colony of all. Because our visit took place at high noon, and because fully half the eggs were either hatched out or were in the act of hatching, we made a very hasty survey and neither attempted to cover the whole ground nor

to count the nests. An outlying ridge of rock, barely severed from the main shore, we did not visit at all, although it was crowded with birds.

The shore line at this place sloped rather sharply for, say, two-thirds of the distance occupied by the colony, running from the water's edge up to forty feet; but there was also a considerable flat which was densely covered with breeding birds. The shore here, although of volcanic origin, was largely covered with rounded rocks, probably water-worn, and further mitigated by the guanos of long occupation.

The variety of eggs presented was bewitching (the motif of our visit was chiefly oölogical), but we were shut out of fully three-fourths of our preferences by the fact that the eggs were near hatching. Of two sets of four, for example, those of one were pipped, and the others, though taken, presented only "tops" when finished. Significantly, the number of fresh or savable eggs among the twos outnumbered those among the threes, ten to one. In fact, there was scarcely a set of three found which we could be sure of saving in perfect condition. This leads quickly to the suspicion that sets of two represent for the most part *second attempts* on the part of those whose previous attempts have for one reason or another proved futile. That this is not altogether the case is, of course, abundantly proven by the number of twos ready to hatch. Many of the ones, in like manner, were perfectly fresh, the beginning of new sets; but others, as certainly, were actually "sets," and placed in nests which were intended to hold no more.

Taken in Mono County CALIFORNIA BABIES *Photo by the Author*

One suspects further that a deficiency in the normal number of eggs

is partly due to destruction by rivals. It is easy to filch one egg out of a nest while the owner's back is turned; and from the fierce squabbling which goes on every time there is a re-settlement of the winged hosts, I am led to fear that every exposed egg has to be defended by its rightful owner if it is to survive.

As I reviewed the matter later (seated in a pine grove at Mammoth—the first moment of notarial leisure allowed in that strenuous season) a

Taken in Mono County *Photo by the Author*

ALARM AT NEGIT

gentle melancholy took possession of me—a regret that all this intensity of living could not have been better seized upon—this furious kaleidoscope of life caught red-handed and transmitted dripping to the page. Perhaps the camera will do that—or what is the camera? A mere mechanism whose record also requires to be interpreted, to be sympathetically considered, in other words, to be *lived*. And there was life at an intense node—a thousand irate fathers beating the air with futile wing, and venting their rage in incomprehensible cackles and kawks, while a thousand anxious mothers hovered or settled by turns, their hearts wrung by the importunities of a thousand chicks in very moment of entering this bubbling

world. Oh, it is a tragic time, when you think of it! A thousand births in a day in a single community, and another thousand expected on the morrow. Little time and scant welcome for visitors on such a day. Prudence and good sense bid an early retirement, and I wish I had seen less rather than more.

But what an armed truce is there also! Call it a "community"? To be sure the birds crowd together as close as they dare, and they act together in facing a common foe. But why do they crowd together? For every beak is turned against every other beak, and the space between nests is guaranteed in every instance to be greater than the distance which can be bridged by two craning necks tipped by two pairs of hostile mandibles. Crabbed tempers have these California Gulls, and the brandished beak is the sign of welcome and the notice of departure to any other of their own kind save their wedded partners, and not infrequently to them also. In conspicuous exception to this churlish behavior, I recall two birds whom we dubbed "the lovers," which during the whole period of our review (I was changing plates under the most awkward circumstances at the Black Rocks colony), stood side by side with their bodies in actual contact (such as birds rarely allow), the very picture of amiability. Perhaps gull nature varies as much as human nature, and there are happy exceptions to the universal grouch.

A close student of comparative psychology or of the comparative philology of gulls would have profited by a week's residence among these birds. In general, I may say that the appearance and behavior of these

Taken in Mono County *Photo by the Author*

THE PEACEFUL ISLES

Taken in Mono County *Photo by the Author*

A WINGED COMMOTION

California Gulls was not conspicuously different from those of Western Gulls or Glaucous-wings under like circumstances. In fact, I suspect that a critical study of the notes of these species would reveal an exact parallelism; and that all the major expressions could be identified or referred to a provincial modification of speech,—an accent rather than something generically different.

Among the notes two occasioned special interest, one a gulping note of protest, which sounded absurdly like *hellp*; the other a crone-like objurgation in solemn, measured tones to which the whole tribe listened. This, too, was uttered with the mandibles almost closed; and its utterance, so different in cadence and quality from anything else heard in the entire babel of sound, made a strong impression. Among them all, certain voices, or it may be special sounds, came out on occasion with the tone of authority. For example, at a time when most of the birds had returned to their eggs and were sitting uneasily upon them, and during an unceasing medley of protest or anxiety, would come a certain note which would cause the entire colony to leap into the air, although we had done nothing whatever, at least at that particular moment, to excite fear. It might have been

something in the timing of its appearance, or something in the psychological stress of its author, which gave this note its sudden compulsion.

Among the breeding birds we noted the presence of several individuals not quite mature, as evidenced by a distinct trace, or an indistinct hue, of black on the tail. I am inclined to believe, however, that these birds were admitted into full fellowship, and that they were breeding.

Taken in Seattle *From a photograph, copyright 1908, by W. L. Dawson*

TO ARMS!

No. 277

Ring-billed Gull

A. O. U. No. 54. **Larus delawarensis** Ord.

Description.—*Adult in summer:* Mantle pearl-gray (typical "Gull-blue," a shade lighter than in *L. argentatus*); extent and pattern of black on wing-tip much as in preceding species; area of subterminal white "wedge" reduced—extent on 1st primary about one inch or less, its traversing shaft black; corresponding area wanting on 2nd primary, or if present appearing as rounded spot on inner web; white tips reduced, usually wanting on 1st and often on 2nd; remaining plumage white. Bill greenish yellow, crossed at angle by a broad and clearly defined black band; feet light yellow or greenish; eyelids vermilion, iris pale yellow. *Adult in winter:* Similar, but cheeks, crown, hind-neck, and sides of neck (narrowly) sharply streaked or spotted with dusky. *First year birds* are nebulated light brownish gray and whitish, with early appearance of pearl-gray on back; quills and tail dusky, blackening distally. Bill black, lightening basally. *Second year birds* are white below with light spotting of brownish dusky on breast and sides; the head pattern is largely that of the adult in winter; the wing-tips retain their nondescript blackish character, while the tail is chiefly light bluish gray, more or less mottled with blackish, and crossed by a definite broad subterminal band of black. Bill, basal half yellow, terminal half black. This species attains maturity in three years, thus "saving" a year over the foregoing larger forms. Length 457.2-508 (18.00-20.00); wing 368.3 (14.50); tail 152.4 (6.00); bill 40.6 (1.60); tarsus 55.9 (2.20).

Recognition Marks.—Crow size, but appearing larger; mantle "gull-blue"; black band across bill at angle; feet greenish yellow (thereby easily distinguishable from all others, save *L. californicus* and *Larus canus brachyrhynchus*). Along the coast narrowly confined to the beach proper.

Taken on Lower Klamath Lake *Photo by W. L. Finley and H. T. Bohlman*

GENERAL ALARM

CALIFORNIA AND RING-BILLED GULLS AND WHITE PELICANS SHOWING

Nesting.—Not certainly known to breed in California. *Nest:* On the ground, of broken-down reeds and grasses, or on summit of musk-rat houses, old grebe nests, and the like. *Eggs:* 2 or 3; colored as in other species. Av. size 61 x 43 (2.40 x 1.70). *Season:* June; one brood.

General Range.—Temperate North America. Breeds in the interior from southern Oregon, Utah (Salt Lake), Colorado, North Dakota, northern Michigan and Quebec north to southern Ungava, central Keewatin, southern Mackenzie (Great Slave Lake). South in migrations over the whole United States to Cuba and Mexico.

Distribution in California.—Common winter visitant and resident along the coast from Tomales Bay southward. Common on all interior bodies of water during migrations. Stragglers present throughout the year on many lakes and ponds.

Authorities.—**Bruch** (*Larus occidentalis*), Jour. Fur. Orn., 1853, p. 101, pl. ii., fig. 20 (Calif.); *Henshaw*, Auk, vol. ii., 1885, p. 232 (Santa Barbara to San Diego); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 14 (s. Calif., winter; dates of arrival and departure).

AS FOR the Ring-bill, the ocean's edge is his domain—in winter. Winter, to be sure, is a polite fiction in southern California, a verbal counter which we retain merely for the sake of squaring our reckoning with that of the unfortunate "East." Or it is a scarecrow word which we love to

bandy mockingly while we are taking our Christmas dip in the surf. Winter or summer, it is all the same to us. But ornithologically speaking, winter has a technical, though often very elastic, sense. It may include autumn and spring, though never summer. Winter, to be exact, is that season, be it short or long, which migratory birds are pleased to spend in the South. The Ring-billed Gulls "winter" for eight or nine months on the coast of southern California from Monterey southward, and, more rarely, upon the larger lakes.

Their choice of the "wash line" is very definite. Their accepted function is to inspect the offering of each last wave. And although they do not fare to and fro with the agility of Sanderlings, it is your Ring-bill, rather than any other species of Gull, who makes first discoveries, and who plays the major role of scavenger, in that "priest-like task of pure ablution round Earth's human shores." And because the line of contact between earth and ocean is really very narrow, the Ring-billed Gulls are as likely to be found singly, or in twos and threes, as in companies. When patrolling, they march along stiffly with an affected, prancing gait, having often an appearance of hauteur, which their mild eyes and timid retreats belie. With one eye on shoreward dangers they, nevertheless, make sudden snatches at the sand, resuming with a jerk an exaggerated uprightness which countervails the lapse. Left to themselves, they will some-

Taken in Santa Barbara *Photo by the Author*

THE OCEAN'S EDGE IS HIS DOMAIN

PORTRAIT OF RING-BILLED GULL

Taken in Santa Barbara *Photo by the Author*

"THEY MARCH ALONG STIFFLY"

times breast the wave with uplifted wings, eager to seize the incoming dainties. And if flight be necessary, it is always down the beach slope with a run which takes them to the water's edge. In this fashion one may drive a shifting company of Ring-bills before him for hours, yet without learning very much of their habits.

Proceeding once along a beach road which paralleled a northern inlet, as the tide neared the flood, I caught sight of a newly-arrived company of these Gulls upon an outer reef. Noting a bar midway between them and the beach, to which they would be likely to retire if not alarmed, I stole up to a sheltered spot commanding a view of the latter location. Here at close range I had the satisfaction of seeing the birds alight gracefully one by one until a company of twenty-six awaited the last advances of the tide. One member of the flock had his suspicions of the dark object ashore, and published them from time to time in a high-pitched note of protest. In uttering this the bird first thrust his head forward with mandibles far apart, and began squealing. This noise he continued with increasing volume, while throwing his head straight up, and then further, like a dog baying the moon. In subsiding, he came to "position" again, and ended by droning a lower and finer note, with mandibles either slightly ajar or closed outright. Without further retreat the flock awaited quietly the oncoming of the tide, and allowed it to lift them, like stranded boats, clear of their anchorage, after which they swam slowly out to sea.

Although rated as the "Common Gull" of the Great Lakes and the Atlantic seaboard, and recorded, rightly enough, as "common in winter along the coast of southern California" there is a singular dearth of positive information regarding this prosaic bird. Its comings and goings have

been noted in a perfunctory way, but of its life history, its peculiarities, its individual flavor, there are none to speak. One suspects that the surest way to condemn a bird to obscurity is to dub it common. That epithet is a notice that its bearer is no longer worthy of consideration; and the amateur avoids it as he would an abandoned mine.

There are, however, two fairly good reasons for this oversight in the case of the Ring-billed Gull in California. In the first place its appearance lacks distinctive character. The bird is obscure, nondescript, average, "mejum," just gull. Even the supposedly distinctive character of the black band upon the beak is not easily made out at a distance. Many gulls, especially immature ones, have black upon the bill. In the second place—and this is the secret, I think—the Ring-bill is the wariest of our wintering gulls. His habitual exposure at the water's edge has from time immemorial made him conscious of hostile notice. Hence it is that with the distant approach of a pilgrim on the strand, your Ring-bill gets uneasy and begins to edge off down the line, or else withdraws outright from the stupid company of Californias and Westerns. Thus the casual observer gets an impression of rarity which is belied by the facts.

Taken on Lower Klamath Lake *Photo by William L. Finley and Herman T. Bohlman*

A MIXED COLONY—RING-BILLED AND CALIFORNIA GULLS

No. 278

Short-billed Gull

A. O. U. No. 55. **Larus canus brachyrhynchus** Richardson.

Synonym.—American Mew Gull.

Description.—*Adult in summer:* Mantle deep pearl-gray (about as in *L. californicus*); remaining plumage except quills white; pattern of black on wing-tip involving first six primaries, somewhat as in *L. californicus*, but reduced in area; subterminal white blotch on 1st primary two inches long, its included shaft white; that on 2nd primary about an inch long, its shaft black; intrusive gray of inner web on 3rd quill and inwards, changing to white distally; pattern of white tips as in *L. delawarensis*, i. e., wanting on 1st quill, present or not on 2nd. Bill slender, weak, without pronounced angle, greenish yellow, brightening (more yellow) on tip; feet and legs dull bluish green, webs yellow. In highest nuptial plumage the eyelids, edges of gape, and the tomia become bright orange-yellow, the bill hoary glaucescent on basal portion, the feet a brighter bluish green, the webs bright yellow; and a faint rosy flush sometimes appears on feathers of underparts. *Adults in winter:* Duller; the cheeks and crown streaked, the neck and breast mottled, and the cervix clouded or overlaid with brownish dusky. *First year plumage:* Chiefly brownish gray, heavily bordered on back and wings with fuscous and whitish; elsewhere nebulated or washed or cross-barred with whitish; quills and tail brownish dusky. Bill light basally, blackish terminally; feet and legs light yellow. Succeeding stages show early irruption of pearl-gray on back and progressive sequence of plumages, much as in *L. delawarensis;* subterminal bar of black distinguishable somewhat as in preceding. Intermediate examples also show tendency to bleaching wing-quills as (conspicuously) in *L. argentatus*. Length of adult: 419.1-457.2 (16.50-18.00); wing 355.6 (14.00); bill 36.8 (1.45); depth of bill at angle 11.4 (.45); tarsus 49.5 (1.95).

Recognition Marks.—Crow size; *small weak bill;* feet greenish yellow.

Nesting.—Does not breed in California. *Nest:* On ground of marsh; of moss, etc. *Eggs:* 2 or 3; colored as in other species. Av. size 57.2 x 40.6 (2.25 x 1.60).

Range of *Larus canus.*—The Northern Hemisphere.

Range of *L. c. brachyrhynchus.*—Breeding in northwestern North America from Athabasca Lake, southern Mackenzie, and the northwestern corner of British Columbia, west to Kotzebue Sound.

Distribution in California.—Fairly common winter resident coastwise, especially in harbors.

Authorities.—**Cooper,** Proc. Calif. Acad. Sci., vol. iv., 1868, p. 10 (San Francisco Bay); *Loomis*, Proc. Calif. Acad. Sci., ser. 2, vol. vi., 1896, p. 24 (Monterey Bay); *Oberholser*, Auk, vol. xxxvi., 1919, p. 83 (crit.; syst.).

A CERTAIN childish innocence and simplicity appears to distinguish these birds from the more sophisticated Californias and Westerns. They are the small fry of the great gull companies which throng our borders in winter, allowed to share, indeed, when Pietro dumps a rich load of restaurant waste, but expected to take a grumbling back seat when the

supply of food is more limited. One may see at a glance that they are not fitted for competition. Their bills are not only shorter, but much more delicately proportioned than those of the other gulls; while their gabbling, duck-like notes oppose a mild alto to the screams and high trumpetings of their larger congeners.

Gulls of this and allied species are quick to appreciate the advantages of protected areas. Along the water front, or near steamers, where shooting would not be allowed, they become very bold. Short-bills, however, do not stand about on palings, and piles, and roofs, as do the Westerns, but rest, instead, almost exclusively on the water. Thus, if one attempts to bait the gulls with an offering of bread laid on the wharf-rail, the larger gulls will begin to line the neighboring rails and posts, craning their necks hungrily, or snatching exposed fragments; but the Short-bills will settle upon the water and draw near to the piling below, content to catch such crumbs as fall from the high-set table.

Taken in Washington
Photo by the Author
"HOVERING DOVES"

Away from the city the gulls become increasingly wary, for no other reason than that sneaks with guns will do what the law forbids, as often as they think themselves safe from observation. Once a gull is killed or wounded, its companions hover about it with piteous cries, momentarily forgetful of their own danger, or indifferent to it, as they urge their fallen comrade to escape. This sympathetic trait is, of course, taken advantage of by the Fourth-of-July sportsman (?), whose only requirements are noise and something to shoot at.

Gregariousness admits of every degree, from the momentary exhibition of sympathy, or the chance assemblage of hawks in migration, to those perfectly timed evolutions of sandpeeps or sparrows which are at once our admiration and our despair. The larger species of gulls foregather closely at nesting time or struggle *en masse* at the garbage dump; but in flight they are independent or only casual in their associations. The smaller species, on the other hand, sometimes exhibit genuine flock impulses. Such an example I once beheld at Santa Barbara, where a flock of some 200 of these Mews, all immature, lay off-shore under a strong breeze. Something frightened them and, rising upon the instant *en masse*, they moved off in close order, wheeled and turned, and presently settled again with a discipline as perfect as that displayed by a flock of plovers. Some feathered Wellington must have had that youthful

Taken in Washington *Photo by the Author*

SHORT-BILLED GULLS IN HARBOR

cohort in training; but if so, I could not discern his epaulets nor mark his shouted orders.

The Short-billed Gull returns to Alaska in May, at which season, according to Mr. Nelson, its soft white plumage is shaded with a delicate rose-color. "It is a marsh-loving species, and is rarely found near the bold promontories and capes which delight the Kittiwakes. Frequenting all the flat marshy country of the coast and interior, they are found nesting from the peninsula of Alaska north to the head of Kotzebue Sound, and from this sea-coast region they breed interiorly over Alaska and northern British America."

No. 279

Franklin's Gull

A. O. U. No. 59. **Chroicocephalus franklini** (Swainson and Richardson).

Description.—*Adults in summer* (sexes alike).—Head and upper portion of neck plain slate-blackish or dusky purplish gray, more slaty anteriorly; an elongated white spot on each eyelid; lower neck (all around), entire underparts, lower rump, and upper tail-coverts immaculate white, the neck and underparts more or less deeply suffused with eosine pink, especially in living or recently killed specimens; back, scapulars, wings, and upper part of rump uniform neutral gray, the tertials and secondaries broadly tipped with white; five outer primaries with a subterminal space of black, varying in extent from about 50 mm. on the second (from outside) to about 12.5 mm. on the fifth, and tipped with white, these white tips varying in extent from about 38 mm. on the outermost to less than 12 mm. on the rest, the gray of basal portion on all becoming white or nearly so distally, next to the black subterminal area, the shafts white except within the latter; remaining (proximal) primaries lighter gray, broadly, but not abruptly, tipped with white, the sixth (from outside) sometimes with a subterminal bar or spot of black; tail white, the four to six middle rectrices tinged with pale gray, especially the middle pair; bill deep red with a more or less distinct subter-

minal band of darker red; iris dark brown; naked orbital ring, legs, and feet, deep red. *Adults in winter:* Similar to summer adults but head and whole neck white, the occipital, auricular, and orbital regions dusky grayish; bill and feet darker red, the former tipped with orange-reddish. *Young:* Pileum and sides of head (except forehead and lores), back and scapulars grayish brown, the longer scapulars margined terminally with pale grayish buff; wing-coverts gray, more or less tinged with brown; secondaries dusky edged with pale gray and broadly tipped with white; primaries dusky, the proximal ones more grayish, all rather broadly tipped with white; tail pale gray or grayish white with a broad subterminal band of blackish; central portion of rump pale gray, the lateral and posterior portions, together with upper tail-coverts and entire under parts, lores, forehead, and eyelids white; bill brownish, the tip dusky; legs and feet brownish (in dried skins)."—Ridgway. Length of adult about 355.6 (14.00); wing 290 (11.42); tail 104 (4.10); bill 32.5 (1.28); tarsus 41 (1.61).

Recognition Marks.—Tern size; resemblance to Bonaparte's Gull (*C. philadelphia*) fairly close; red beak (instead of black) distinctive for adult; wing pattern quite different, more like the larger gulls. Immature plumages require expert analysis.

Nesting.—Does not breed in California. *Nest:* A bulky platform or truncated pyramid of dead rushes, placed on broken-down rushes, or in shallow water of marsh, often floating. *Eggs:* 3; "normal gull type," but averaging darker in tone. Av. size 53.85 x 36.8 (2.12 x 1.45). *Season:* June.

General Range.—North and South America, breeding from South Dakota and Minnesota north to Manitoba, Saskatchewan, and Alberta. South in winter from Gulf coast of Louisiana and Texas to Peru and Chile. Accidental in California, Utah, Ohio, Ontario, Virginia, and the Lesser Antilles.

Occurrence in California.—Rare or casual during migrations. *Immature birds* taken at Hyperion, Nov. 22, 1913; Oct. 17, 1914; and Nov. 24, 1914, by J. Eugene Law; Oct. 29, 1917, by L. E. Wyman.

Authorities.—Law (*Larus franklini*), Condor, vol. xvii., 1915, p. 96; *Wyman*, Condor, vol. xx., p. 192.

OUR KNOWLEDGE of this gull as a bird of California is based solely on fall specimens taken by Messrs. Law and Wyman at Sewer Mouth, *alias* Hyperion, in Los Angeles County. Franklin's Gull is essentially a bird of the northern interior, breeding in the Dakotas, Manitoba, and Saskatchewan; and it usually finds its way down the Mississippi Valley in the autumn, and so *via* Mexico to the coast of Peru. The four specimens taken were all immatures of the first year, and their discrimination from the attendant swarms of Bonaparte Gulls was an astute piece of work on the part of two of California's most prominent ornithologists. Hyperion has become a recognized port of call for all migrating *Laridæ*, but it remains to be seen whether *C. franklini* is a regular visitant.

No. 280

Bonaparte's Gull

A. O. U. No. 60. **Chroicocephalus philadelphia** (Ord).

Synonyms.—Sea Pigeon. Bonaparte's Rosy Gull.

Description.—*Adult in summer:* Head including throat blackish slate, mantle pearl-gray; primaries extensively white, the first six with black terminal portions, the third to sixth, in addition, narrowly tipped with white; the first quill with outer web and tip black, the second and third altogether white with black tips, the fourth white on outer web, pearl-gray on inner web, with touch of white at extremity of terminal black, effecting the transition to the nearly uniform basal pearl-gray of inner primaries; remaining plumage pure white, the underparts more or less flushed with pale rosy. Bill jet black; feet and legs rich orange-red, with black nails; feathering of eyelids white posteriorly, the skin carmine. *Adult in winter:* Without the black hood; a dab of slate behind the ear and another before the eye, with a plumbeous suffusion of occiput instead; rosy tint of underparts wanting; bill lighter basally, and feet pale flesh-color. *Immature:* Like adult in winter, but plumbeous suffusion of hind-head more extensive and tinged with brownish; the pearl-gray of mantle less distinct and varied by brownish gray; lesser wing-coverts and inner tertials mostly brownish gray; primaries mostly blackish on exposed outer webs, where the adult is white, and white on outer webs of inner primaries, where adult is pearl-gray; the inner primaries narrowly tipped with white as before; tail crossed terminally, or nearly so, with a broad band of blackish or brownish dusky; bill still lighter, but blackish toward tip. *First plumage:* Much as in immature, but crown, cervix, sides of neck and back, plumbeous dusky varied by brownish gray; feet still lighter. Length of adult: 304.8-355.6 (12.00-14.00); av. of 10 Monterey and Alaskan specimens: wing 268 (10.55); tail 101.2 (3.98); bill 28.4 (1.12); depth at angle 6.6 (.26); tarsus 35.3 (1.39).

Recognition Marks.—Little hawk size; with Sabine's, smallest of local gulls; size of Common Tern (*Sterna hirundo*); head black in breeding plumage; bill black or mostly black; mantle gull-blue; primaries mostly white and gull-blue, tipped with black and very narrowly with white. To be told at a glance from the terns by its shorter, squarish tail, and in breeding plumage by head being black *all around*. For comparison with *Xema sabini* see under next species.

Nesting.—Does not breed in California. *Nest:* Of sticks, lined with grass, etc.; placed four to twenty feet high in bushes, trees, or on stumps, or in default of such upon high ground in marsh. *Eggs:* 3; rarely 4; olive-gray, greenish olive-gray, or brown, with smallish spots or blotches of umber and violet-gray, chiefly about larger end. Av. size 48.3 x 33 (1.90 x 1.30).

General Range.—North America. Breeds from northern British Columbia, north in Alaska, Yukon, and northern Mackenzie. South in migrations over practically the entire continent to the southern states, Lower California, and northern Mexico. Winters north to South Carolina, and sparingly to Washington.

Distribution in California.—Abundant during migration along the seacoast, and casually throughout the interior. Winters commonly along the coast north to Monterey and more sparingly northward in suitable harbors.

Authorities.—Lawrence (*Chroicocephalus philadelphia*), in Baird, Rep. Pac. R. R. Surv., vol. ix., 1858, p. 852 (San Diego, Petaluma, etc.); *Willett*, Pac. Coast Avifauna, no. 7, 1912, p. 14 (s. Calif.; migr. dates, etc.); *Dwight*, Auk, vol. xxxvii., 1920, p. 265 (plumages and molts).

Taken in Santa Barbara *Photo by the Author*

CIRCE

BONAPARTE GULL IN WINTER DRESS

"NATURE PHOTOGRAPHY" is really a phase of the collector's mania. The devotee of the camera becomes so thoroughly obsessed with the idea of "taking" everything he sees, that he cannot sit still and enjoy the largess of nature. In the early days of the autochrome we even felt uneasy in the presence of a sunset, and while others were drinking in the glories of a crimson West, we grumbled at the absence of our favorite "gun." It is not alone a temporary enjoyment that one misses either,—a surrender to beauty's self, untainted by professional appraisal. The intent photographer, following the movements of his subject, jockeying for position, computing exposure schedules, fearing momentary flight, has not time for accurate observation nor for notebook work. Science and Art conflict here, and though each may serve the other through the finished product, the photograph, the pursuit of bird portraits in itself is a thoroughly engrossing and non-scientific pursuit.

It is for this reason that the author offers herewith a gallery of

Taken in Santa Barbara *Photo by the Author*

FALLEN ANGELS
ATTENDANTS ON THE OUTFALL SEWER

portraits (more or less extensive "according to style and binding"), and confesses that he knows nothing more about the Bonaparte Gull than he did fourteen years ago when the following lines were penned:

A more peaceful scene could scarcely be conjured up by the imagination than that of a company of Bonaparte Gulls resting at high tide. Some sixty of them sit before me now on a miniature boom of radiating logs, and I am spying on them from the shelter of a deserted cannery. The windward logs break the force of the tiny waves which are running before a gentle breeze, and provide an oasis of calm. In this glassy space a few birds, mostly late comers, are bathing and otherwise disporting themselves; but most of the company sit placidly upon the logs in dainty rows, or doze with head tucked under wing. A few terns, hardly distinguishable at this distance from their square-tailed kinsmen, are allowed to share this haven of refuge, and no distinctions of courtesy are made. Now and then there is a little jostling, as some newcomer, fresh from his bath, demands admission to the ranks, and a squabble in low-pitched tones, not unlike the grunting of little pigs, ensues; but the difficulty is soon adjusted and peace reigns supreme.

Taken in Santa Barbara A WATERFRONT SPECIMEN *Photo by the Author*

Like most pygmies, the Bonapartes are very sociable creatures, and they not only foregather with their fellows to the number of thousands, but they associate more or less in flocks at all times, and are so often moved by common impulse that they merit the name "Sea Pigeons," frequently applied to them. In spring Bonaparte is the very devil of a fellow, and would be set down at sight as a lady-killer, were it not for the fact that his good wife, present or prospective, is similarly attired. You see, by way of preparation for nuptials, this bird thrusts its head half way into a pot of black paint. And because the paint is very black (Oh, well, "plumbeous slate," then; but that is black enough, surely) he shuts his eyes *very* tight and saves a space above and below untouched by the pigment. And then he, or she, bears upon the breast at this season a rosy blush, which alone would be enough to proclaim the nearness of mating time.

When the Bonapartes return, however, reaching, as they do, our northern borders late in July, they are doffing their black head gear, and they soon look as babyish and innocent as ever.

Birds of this species have no liking for the steerage fare afforded by the cities, but they gather extensively upon the tide-flats, where they pursue marine worms and tiny crustaceans. They are not less fond of

Taken in Santa Barbara *Photo by the Author*

THE VOLUCRY CHARGES

kelp-beds or open water, and they have an especial liking for tide channels, where there is great bustle of fishy traffic, and where a fellow can catch a ride now and then on a floating soap-box—outbound or inbound, it matters not.

Now a brother sights a school of herring and sets up a joyful yelp. Instantly every "pigeon" within hearing joins him, and scores come hurrying up from unseen distances, till the water is white with them. The discreet fishlets have gone below, and the gulls are left to spin about on the surface, looking foolish, or to gabble amicably with their similarly duped neighbors. After all, nothing matters in good society.

I have only to add, with regret, that Bonapartian manners have suffered a sad decline, of late, or at least in the Southland. "Hyperion" has no more devoted pensioners than these same Sea Pigeons; while the submerged outlet of the trunk sewer at Santa Barbara, which was for so

Taken in Santa Barbara *Photo by the Author*

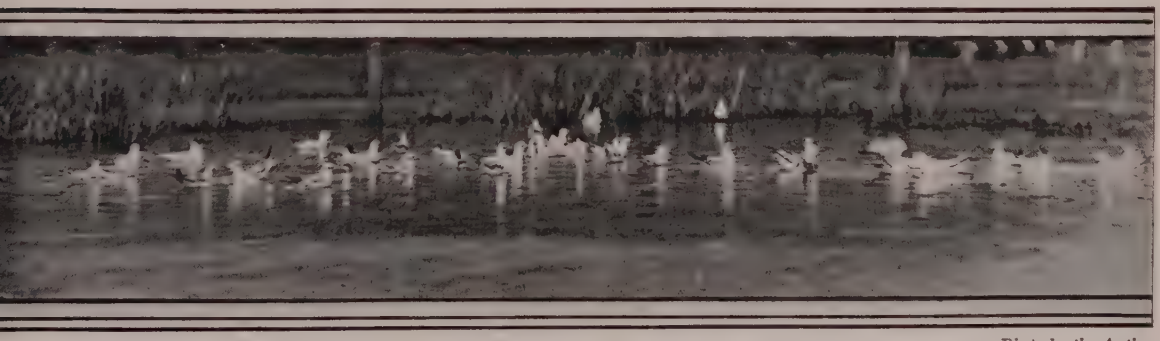
BONAPARTE'S SOLDIERS

Taken in Santa Barbara *Photo by the Author*

FISHING

long a time a disgrace to the town, was invariably marked by a hovering host of these depraved fairies. But convention will excuse anything, as witness the costume of the bathing beach half a mile to westward. If ladies may discard their clothing, or most of it, and "get away with it," we will not pause to rebuke a bird for reverting to fashions still more ancient.

And apropos of mob psychology (in other words, fashion), I am reminded of the great consternation caused by the appearance of a Duck Hawk over an assembly of Bonaparte Gulls upon the beach at Orella. The Gulls rose in terror and kept together in a dense mass, each bird, apparently, determined to keep in the center out of harm's way. Some day—oh just *some* day—I'd like to see the Archangel Gabriel appearing suddenly over the bathing beach!



Taken in Santa Barbara *Photo by the Author*

A FASHIONABLE WATERING PLACE

NOTE THE APPEARANCE OF BIRDS IN NUPTIAL PLUMAGE

No. 281

Heermann's Gull

A. O. U. No. 57. **Blasipus heermanni** (Cassin).

Synonym.—White-headed Gull.

Description.—*Adult in breeding plumage:* Mantle plumbeous-slate; head and neck shading into deep ashy gray of remaining plumage; upper tail-coverts light ashy; greater wing-coverts and tertials tipped with ashy and whitish; wing-quills and tail black, the latter broadly, the former (except 1st and 2nd primaries) narrowly, tipped with white. Bill rich vermilion, tipped narrowly with black; feet and legs reddish black. *Adult in winter:* Head and neck lightly streaked with dusky. *Young of the year:* Entire plumage sooty brown, lightening on throat, blackening on quills and tail; a little whitish skirting below, more on wing-coverts; also, or not, tail faintly white-tipped. Bill (drying) yellowish at base. *Immature:* Mingled sooty and plumbeous; head darker and more uniform sooty blackish in contrast with cervix, but throat white; no white on quills or tail. Bill dull orange basally, black at tip. Probably attains maturity the third year. Length of adult: 444.5-533.4 (17.50-21.00); wing 342.9 (13.50); bill 44.5 (1.75); depth at angle 14 (.55); tarsus 55.9 (2.20).

Recognition Marks.—Crow size; black and vermilion beak; dark body plumage unmistakable in any feather; mellow notes.

Nesting.—Does not breed in California. *Nest:* A mere depression in loose soil, unlined. *Eggs:* 2 or 3; of somewhat lighter coloration than "normal gull type," and more finely spotted. Av. of 28 eggs in M. C. O. coll.: 59.3 x 41.9 (2.335 x 1.65); index 71. *Season:* c. April 8.

General Range.—Coasts of western North America. Breeds in March and April on the Tres Marias Islands near Tepic, and upon islands in the Gulf of California, north at least to Ildefonso. At other seasons ranges north along the seacoast to Vancouver Island and the Gulf of Georgia.

Distribution in California.—More or less common along the coasts and harbors throughout the year, but numbers greatly augmented in early winter by the return of northern tourists, and depleted in early spring by withdrawal of breeding birds.

Authorities.—**Cassin** (*Larus heermanni*), Proc. Acad. Nat. Sci. Phila., vol. vi., 1852, p. 187 (orig. desc.; type locality, San Diego); *Howell*, Pac. Coast Avifauna, no. 12, 1917, p. 28 (s. Calif. ids.); *Willett*, Condor, vol. xx., 1918, p. 122, fig. (aberrant wing markings).

A-OWNH ownh ownh ownh! A-ownh ownh ownh ownh ownh! They are southern voices that are speaking, and the notes produce a pleasing complex of impression, for they are sometimes drawling and indolent, in spite of their accelerando cadence, and they are mellow and limpid, for all of their nasal twang or their underlying suggestion of feline moroseness. You have offended the dignity of an orderly meeting, and these are protests. This ledgeful of dark birds, which you have just disturbed by your thoughtless approach, is none other than the August

Taken in California HEERMANN GULLS, ADULTS AND IMMATURE *Photo by W. L. Finley*

Conclave of Ancient Loafers, the sun-warmed, surf-soothed, pelican-fed concatenation of incorrigible indolents. "The night is for sleep and the day is for rest," says the Heermann Gull, who, being a Mexican (in spite of his German name, which is no fault of his), knows something of Spanish proverbs.

It is permitted to loaf, in the Southland,—to loaf and to invite one's soul. The Swift does not see it all, nor yet Jenny Wren, always a-flutter. Who but a Heermann Gull, sitting tranquil on a timber hard by, could have shared such a vision of beauty as came to me once on a Redondo pier! Gazing northward, we viewed the breakers lengthwise, as they broke under a burning sun upon a perfect shore. There was a stiff breeze outside, so that the billow, fleeing under the lash of its master, suddenly encountered an area of immovable air. A sheet of spray would be torn from the crest of the incoming comber, and this would flash into a splendor of prismatic light. And the spectacle was more beautiful than that of a mere rainbow, for this Triton's crest would exhibit only one color at a time, a single hue of the immortal seven, raised to some electric shade of diaphanous brilliancy. Moreover, the illuminated mist changed color by sudden leaps in its shoreward progress, as though it were traversing the field of some heavenly spotlight, the defractive area of a prism de luxe, so large that it had to be served up to the human eye on the instalment plan. The commonest shade I caught was a lumiere green, or viridine, an instant vision of budding springtime

Taken in Santa Barbara *Photo by the Author*

A GRACEFUL LOITERER

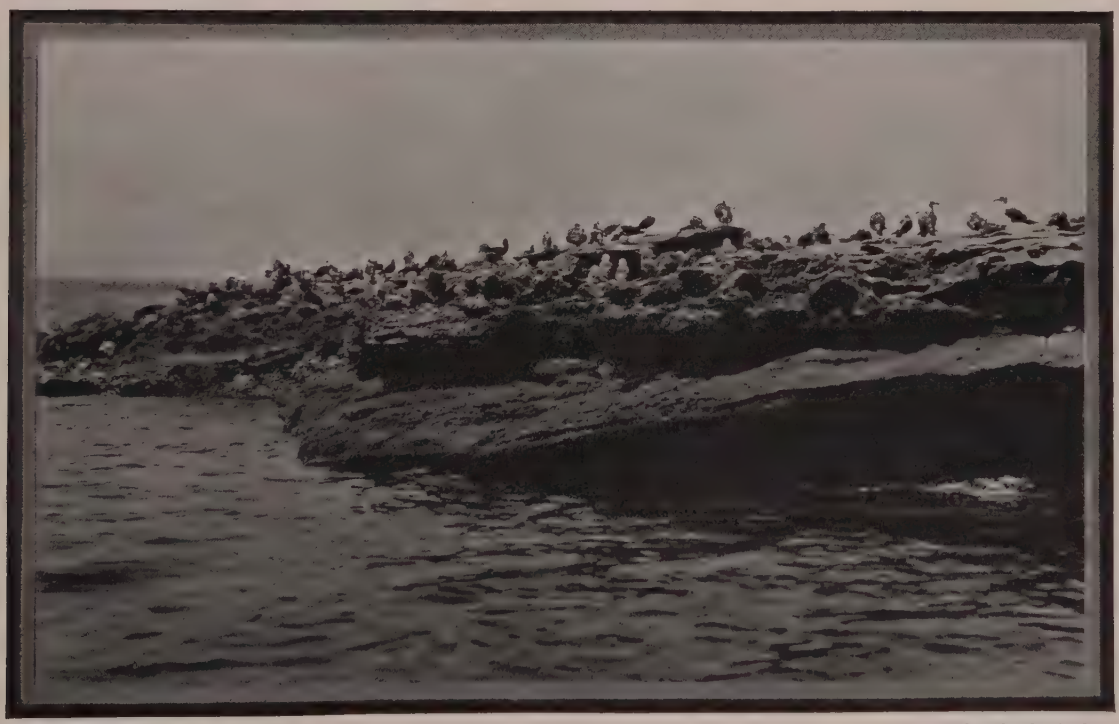
which set the nerves a-tingling, but which itself gave way to a screeching autumnal hue, before one could analyze the ecstasy. Another mood was palest amethyst, or virgin violet, subtle beyond the spell of words. This I saw in bewildering succession and ecstatic repetition, and seized my notebook, the while—Sir Gull—he took a nap.

This bird might perhaps be more accurately named the Kelp Gull, for it is in the kelp-beds, so abundant off our shores, that it finds its congenial home and feeding ground. Ensnared in the meshes of the plant are many bits of wreckage, mill-waste, or pieces of driftwood, upon which the gulls are fond of riding. Here, too, the gulls find shrimps, which, according to Linton, form an important element in *heermanni*'s bill of fare. The bird is fond also of the smaller fish, and earns its rests by agility here. As Anthony says: "When herring are swimming in compact schools near the surface both Heermann's and Western Gulls secure them by approaching the school from behind and flying near the surface of the water, making repeated quick dips into the school. The fish seek safety in the depths the instant anything occurs to alarm them, but soon return to the surface, so that the gulls by stalking them from the rear are enabled to approach quite near before the fish are alarmed. As soon as the limits of the school have been passed, the gull, rising higher

in the air, returns by a wide circuit and again passes over the school from the rear. As the fish all swim in one direction, in a compact mass, these tactics afford the gulls a decided advantage which seems to be thoroughly understood."

Dr. J. G. Cooper, an early observer, was among the first to note the parasitic habits of this gull. He says: "Though quite rapid in flight, and well able to supply themselves with food, they have a curious habit of 'sponging' on the pelicans and large gulls. Often a long train of pelicans is seen, as the tide is rising, slowly wandering round the bay, each one attended by one or more of these gulls, which are usually some distance behind. Whenever a pelican awkwardly plunges into the water and emerges with its enormous scoop-net full of fish, its parasites are sure to be ready and fearlessly seize the fish from its very jaws, the stupid bird never resenting the insult, or appearing to take the least notice of the little pilferer, which it could easily rid itself of by one blow, or even swallow alive."

The Heermann Gull is our most conspicuous example of what we call reverse migration. That is, it goes south instead of north to breed.

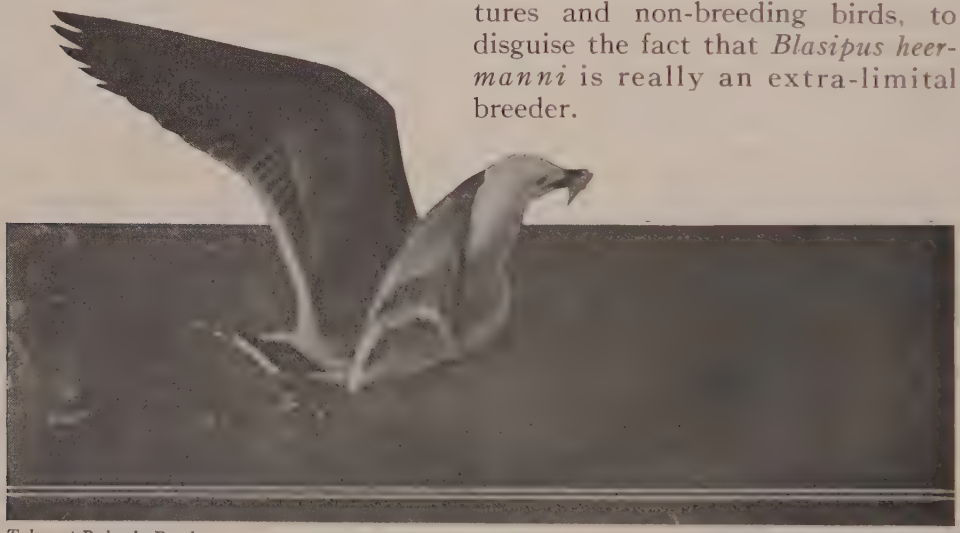


Taken at La Jolla *Photo by the Author*

THE AUGUST CONCLAVE OF ANCIENT LOAFERS

Its breeding haunts, known to include certain islands off the coast of Lower California and western Mexico, have only recently come to light, and are not yet very fully mapped out. The largest colony yet described is that of Ildefonso Island in the Gulf of California, in Latitude 26° 38′ north, where, in 1909, W. W. Brown, Jr., estimated that 2500 pairs were nesting. Nesting takes place in March and early April, so that by the last week in May returning migrants, having completed the duties of reproduction, begin to appear along the coast of southern California. There is a steady increase in numbers till July, at which time, and after, this species outnumbers the native Westerns (*Larus occidentalis*) two to one in southern waters. The migratory movement persists throughout the summer and carries many of the species as far north as British Columbia; but in general it may be affirmed that they are present in a steadily decreasing ratio anywhere north of Monterey. Heermann Gulls are a little clannish, and are likely to flock by themselves even when sharing their resting places with other species. Their relations with the Western Gull, however, are most familiar, and they are to be found pretty much wherever *occidentalis* goes, save that they will not go far inshore nor under any circumstances venture "cross lots" to visit interior waters.

By the end of January adult birds have assumed white heads, which mark the breeding plumage, and have begun to forsake Californian waters. Yet there always remain behind a sufficient number of stragglers, immatures and non-breeding birds, to disguise the fact that *Blasipus heermanni* is really an extra-limital breeder.



Taken at Redondo Beach *Photo by the Author*

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